

TM 11-5820-203-15

DEPARTMENT OF THE ARMY TECHNICAL MANUAL

**ORGANIZATIONAL,
DS, GS, AND DEPOT
MAINTENANCE MANUAL.**

**REPEATER SET, RADIO AN/MRC-54(V)
INCLUDING REPAIR PARTS AND SPECIAL
TOOL LISTS**

This copy is a reprint which includes current
pages from Changes No. 1.



HEADQUARTERS, DEPARTMENT OF THE ARMY

22 JULY 1965

WARNING

High voltage is used in the equipment.
DEATH ON CONTACT may result if safety
precautions are not observed.

EXTREMELY HIGH POTENTIALS EXIST IN THE FOLLOWING UNITS:

SIGNAL AND POWER ENTRANCE box	115 volts ac
POWER DISTRIBUTION PANEL	115 volts ac
Radio equipment	900 volts dc
Intercommunication Station LS-147(*)/FI	270 volts dc

VENTILATION IS ESSENTIAL

The AN/MRC-54(V) must be ventilated at all times when occupied.

ANTENNA ERECTION WARNING

During assembly and erection of the antenna system, observe all safety requirements in TB SIG 291. INJURY or DEATH can result from failure to comply with the safety procedures.

DON'T TAKE CHANCES!

TECHNICAL MANUAL

No. 11-5820-203-15

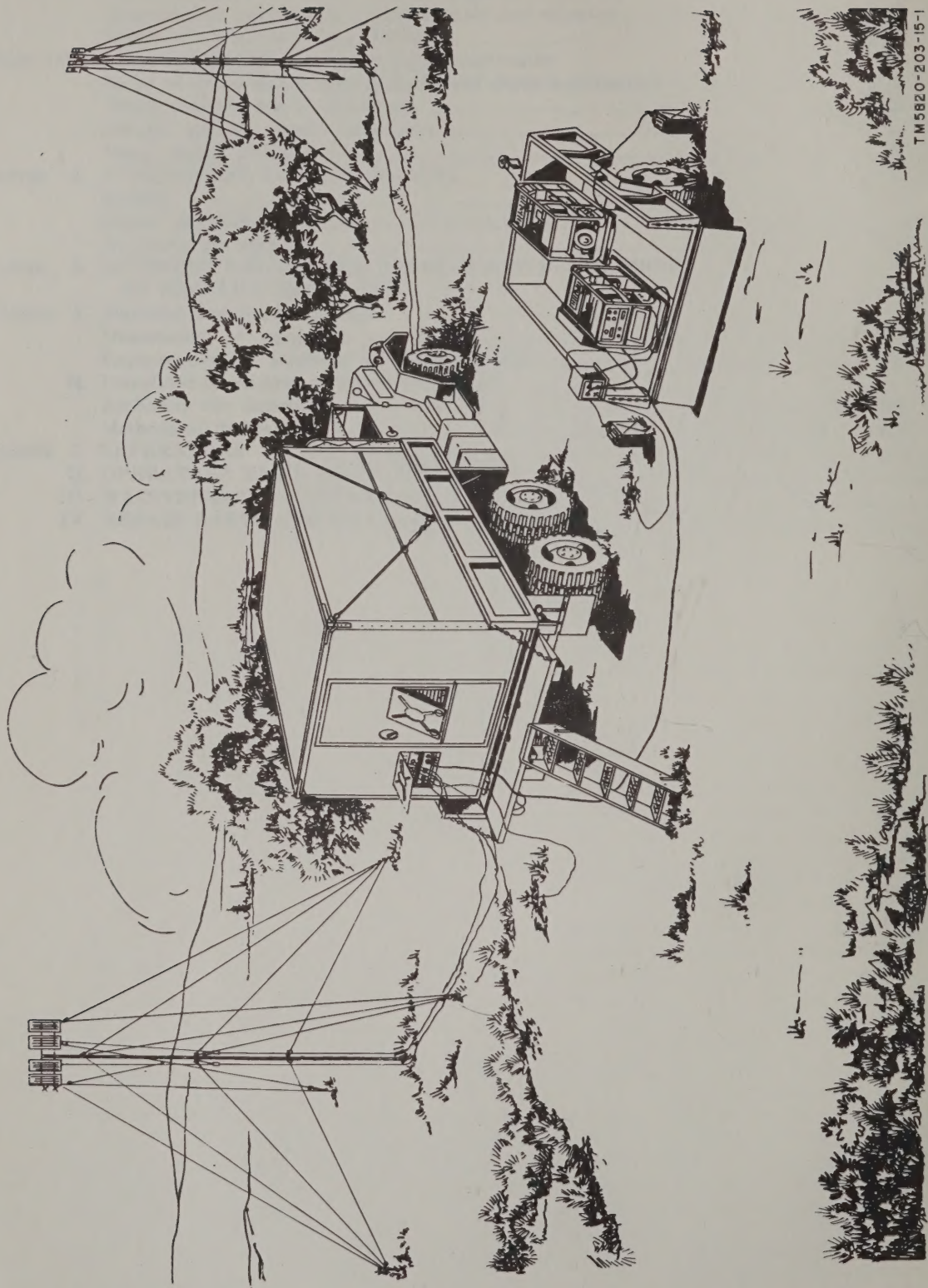
HEADQUARTERS,
DEPARTMENT OF THE ARMY
WASHINGTON, D. C. 20315, 22 July 1965

REPEATER SET, RADIO AN/MRC-54 (V)

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*This technical manual supersedes TM 11-5820-203-15, 29 September 1959, including C3, 15 August 1961, C6, 19 April 1963, and C7 21 December 1964 and TM 11-5820-203-25P, 21 December 1964.

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Figure 1-1. Repeater Set, Radio AN/MRC-54(V) and typical generator set connected for operation.

CHAPTER 1

INTRODUCTION

Section I. GENERAL

1-1. Scope

a. This manual describes Repeater Set, Radio AN/MRC-54(V) (fig. 1-1) and covers its installation, operation, functioning, and maintenance. It also includes lists of repair parts authorized for maintenance of the AN/MRC-54(V). Except for Shelter, Electrical Equipment S-177(*)/MRC-54(V) and its components, the major components of the AN/MRC-54(V) are covered in detail in their respective technical manuals (appx I).

b. Official nomenclature followed by (*) is used to indicate all models of the equipments covered in this manual. Thus, Intercommunication Station LS-147(*)/FI represents Intercommunication Stations LS-147C/FI and LS-147D/FI and Shelter, Electrical Equipment S-177/MRC-54(V) and S-177A/MRC-54(V) through S-177E/MRC-54(V).

c. Appendixes II, III and IV are current as of 20 December 1968.

1-2. Index of Publications

a. *DA Pam 310-4*. Refer to the latest issue of *DA Pam 310-4* to determine whether there are new editions, changes, or additional publications pertaining to the equipment.

b. *DA Pam 310-7*. Refer to *DA Pam 310-7* to determine whether there are Modification Work Orders (MWO's) pertaining to the equipment.

1-3. Forms and Records

a. *Reports of Maintenance and Unsatisfactory Equipment*. Use equipment forms and records in accordance with instructions in TM 38-750.

b. *Report of Packaging and Handling Deficiencies*. Fill out and forward DD Form 6 (Report of Packaging and Handling Deficiencies) as prescribed in AR 700-58 (Army) NAVSUP Publication 378 (Navy), AFR 71-4 (Air Force), and MCO P4610-5 (Marine Corps).

c. *Discrepancy in Shipment Report (DISREP) (SF361)*. Fill out and forward Discrepancy in Shipment Reports (DISREP) (SF361) as prescribed in AR 55-38 (Army), NAVSUP Pub 459 (Navy), AFM 75-34 (Air Force), and MCO P4610.19 (Marine Corps).

d. *Reporting of Equipment Manual Improvements*. Report of errors, omissions, and recommendations for improving this publication by the individual user is encouraged. Reports should be submitted on DA Form 2028 (Recommended Changes to DA Publications) and forwarded direct to Commanding General, U.S. Army Electronics Command, ATTN: AMSEL-ME-NMP-AD, Fort Monmouth, N.J. 07703.

Section II. DESCRIPTION AND DATA

1-4. Purpose and Use

a. The AN/MRC-54(V) is an air- or vehicle-transportable radio repeater set used between

radio terminals such as Radio Terminal AN/MRC-69(V) (A, fig 1-2). It may also be used as a radio terminal when connected to

appropriate telephone terminal equipment (B, fig. 1-2).

b. The letter V in the nomenclature (AN/MRC-54(V)) indicates that the radio equipment used in the shelter is variable and is to be determined by the operating frequency requirements of the user. Any of six frequency bands within the 50-megacycle (mc) to 1,875-mc range may be used (para 1-5). The components required to provide the appropriate frequency bands are listed under *radio equipment* in appendix II.

1-5. Technical Characteristics

a. Power Requirements.

Type	115 volts ($\pm 10\%$), 50 to 60 cps, single-phase ac.
Consumption:	
Radio sets (3)	3,300 watts (1,100 watts each set).
Blowers (2)	250 watts (125 watts each blower).
Heater	1,500 watts.
Intercom	40 watts.
Shelter lighting	250 watts.
Total	5,340 watts (approx).

b. Radio Facilities.

Radio set (appx II)	3.
Type of modulation	Frequency modulation (fm).

Operating frequency ranges and power output:

	Frequency	Power output
A-band	50-100 mc;	60-100 watts
B-band	100-225 mc;	70-115 watts
C-band	225-400 mc;	70-115 watts
D-band	400-600 mc;	50-100 watts
F-band	790-965 mc;	10-14 watts
J-band	1,350-1,875 mc;	10-14 watts

Transmission range ¹ .	Line of sight (approx 30 miles (48 kilometers) at ground level).
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c. Local Communication Facilities.

Telephone circuit	Telephone Set TA-312/PT
Intercom circuit	Intercommunication Station LS-147(*)/FI.

d. Weight and Dimensions (outside).

Weight	6,200 lb (approx 7,700 lb crated).
Length	138 in.
Width	80 in.
Height	77-1/2 in.

1-6. Components of Repeater Set, Radio AN/MRC-54(V)

The basic issue items list (appx II) lists the components that comprise a complete AN/MRC-54(V). Refer to paragraph 1-5 for the overall dimensions of the assemblage and to figure 1-3 through 1-11 and 6-1 through 6-3 for illustrations of components of the AN/MRC-54(V).

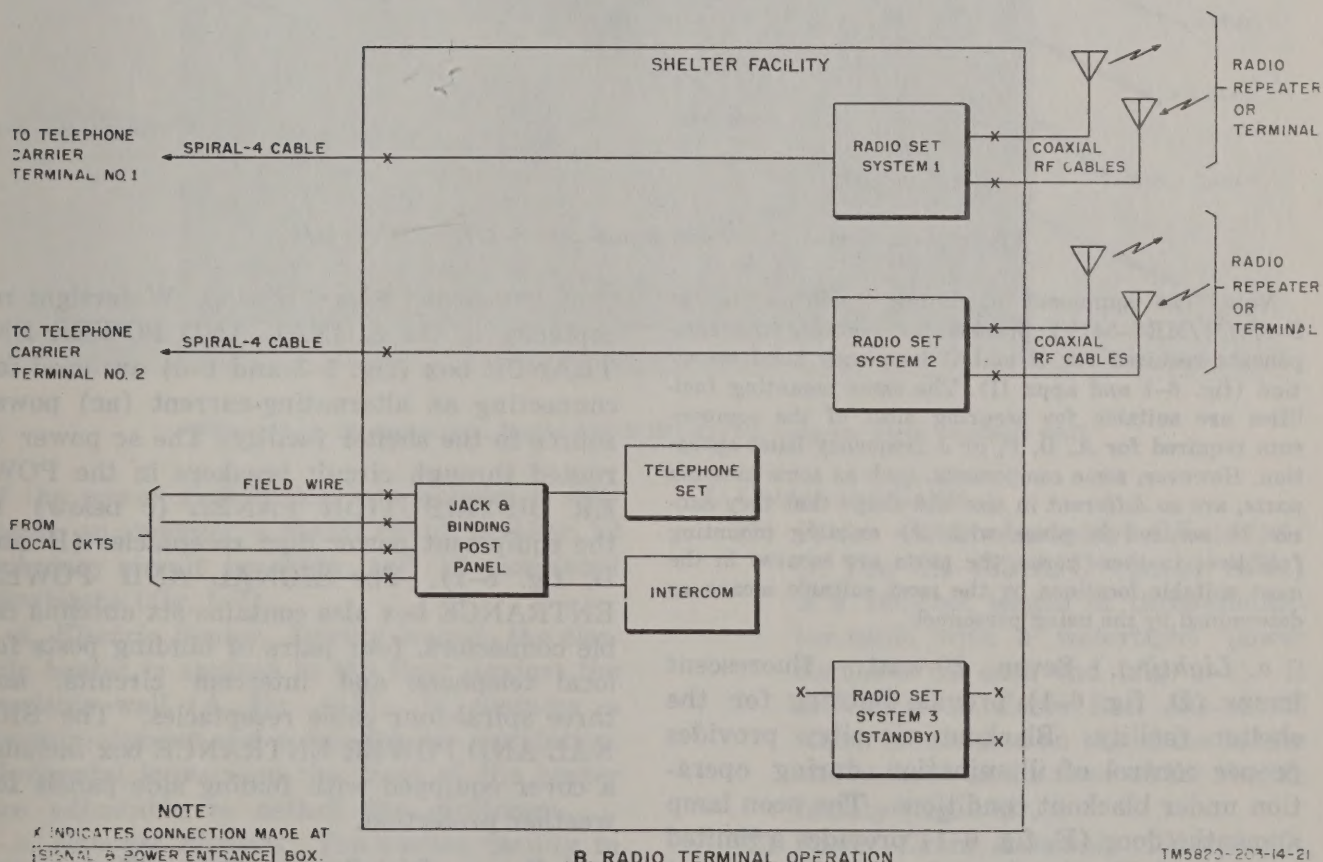
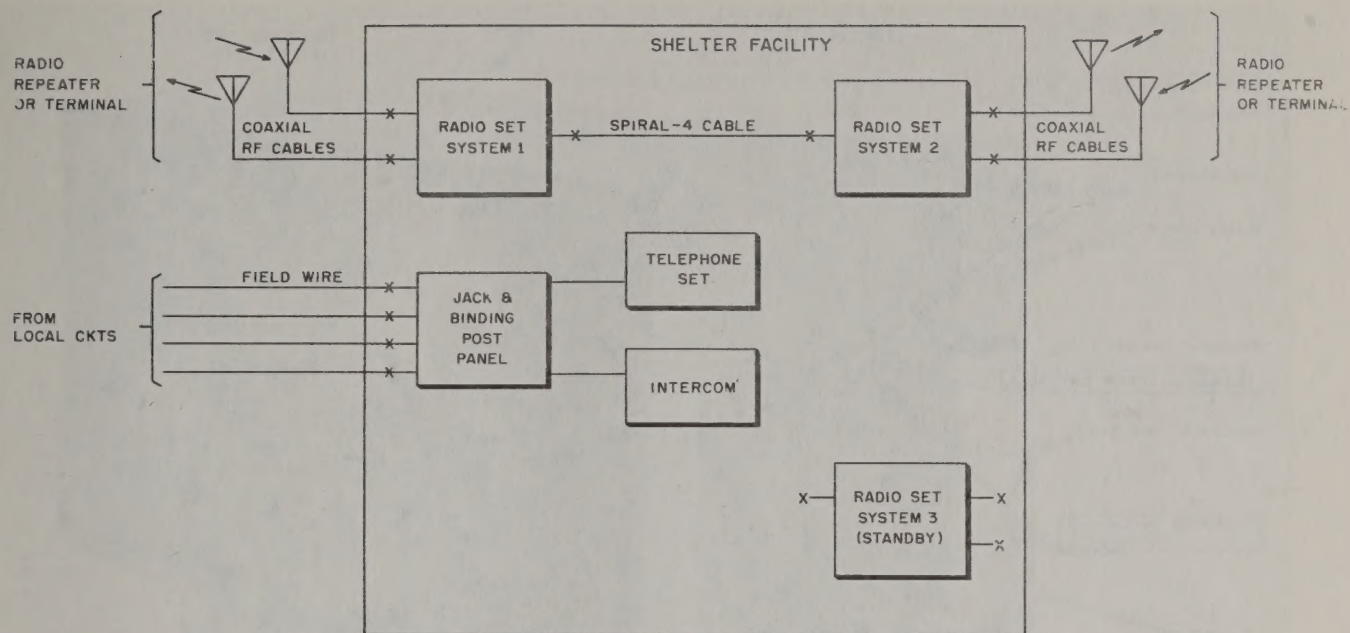
1-7. Description of Repeater Set, Radio AN/MRC-54(V)

The AN/MRC-54(V) consists of Shelter, Electrical Equipment S-177(*)/MRC-54(V) (shelter facility) (fig. 1-3) and the communication equipment and miscellaneous components listed in appendix II. All external signal and power connections are made at the SIGNAL AND POWER ENTRANCE box. Figures 1-4, 1-5, and 6-1 show interior details of the AN/MRC-54(V). Refer to paragraphs 1-8 and 1-9 for a description of the shelter facility and the major equipment components.

1-8. Description of Shelter, Electrical Equipment S-177(*)/MRC-54(V)

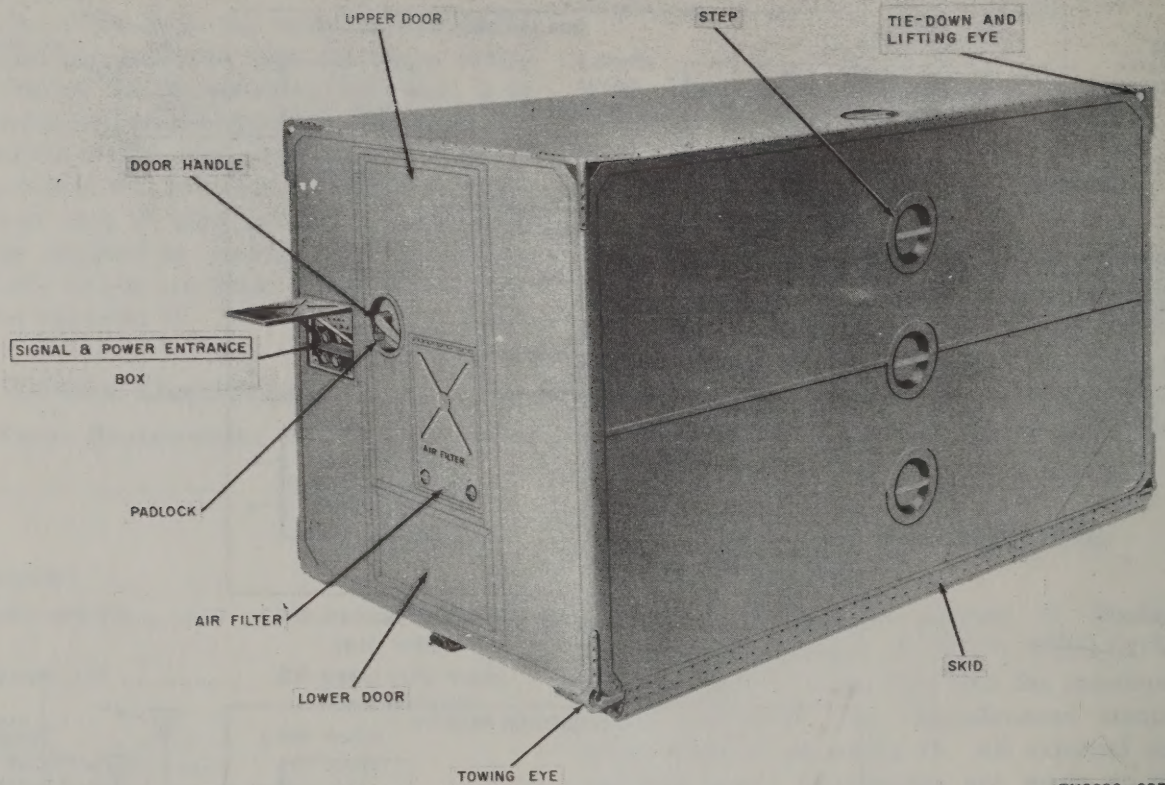
The S-177(*)/MRC-54(V) is an electrical equipment shelter modified to accommodate the equipment components of the AN/MRC-54(V) (fig. 1-3). The shelter facility can be transported by helicopter or truck and is fully insulated and weatherproof. Two exhaust blower vents with hinged covers are located on the outside front wall. The upper section of the two-section door at the opposite end of the shelter facility permits entrance when the shelter facility is truck-mounted and the tail-gate is up.

¹Approximate values; range will vary according to atmospheric conditions and terrain.



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Figure 1-2. Repeater Set, Radio AN/MRC-54(V), equipment operating arrangements, block diagram.



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Figure 1-3. Shelter, Electrical Equipment S-177(*)/MRC-54(V).

Note: The equipment mounting facilities in the S-177(*)/MRC-54(V) provide for securing the components required for B and C frequency band operation (fig. 6-1 and appx II). The same mounting facilities are suitable for securing most of the components required for A, D, F, or J frequency band operation. However, some components, such as some antenna parts, are so different in size and shape that they cannot be secured in place with the existing mounting facilities; in these cases, the parts are secured in the most suitable locations by the most suitable means as determined by the using personnel.

a. Lighting. Seven 20-watt fluorescent lamps (D, fig. 6-1) provide lighting for the shelter facility. Blackout circuitry provides proper control of illumination during operation under blackout conditions. The neon lamp above the door (E, fig. 6-1) provides a limited amount of illumination when the fluorescent lights are extinguished during operation of the blackout circuitry.

b. Power and Signal Wiring. Watertight receptacles in the SIGNAL AND POWER ENTRANCE box (fig. 1-3 and 1-6) are used for connecting an alternating-current (ac) power source to the shelter facility. The ac power is routed through circuit breakers in the POWER DISTRIBUTION PANEL (c below) to the equipment power duct receptacles (B and D, fig. 6-1). The SIGNAL AND POWER ENTRANCE box also contains six antenna cable connectors, four pairs of binding posts for local telephone and intercom circuits, and three spiral-four cable receptacles. The SIGNAL AND POWER ENTRANCE box includes a cover equipped with folding side panels for weather protection.

c. Power Distribution Box. The power distribution box is mounted on the front wall of the shelter facility (B, fig. 6-1). The panel

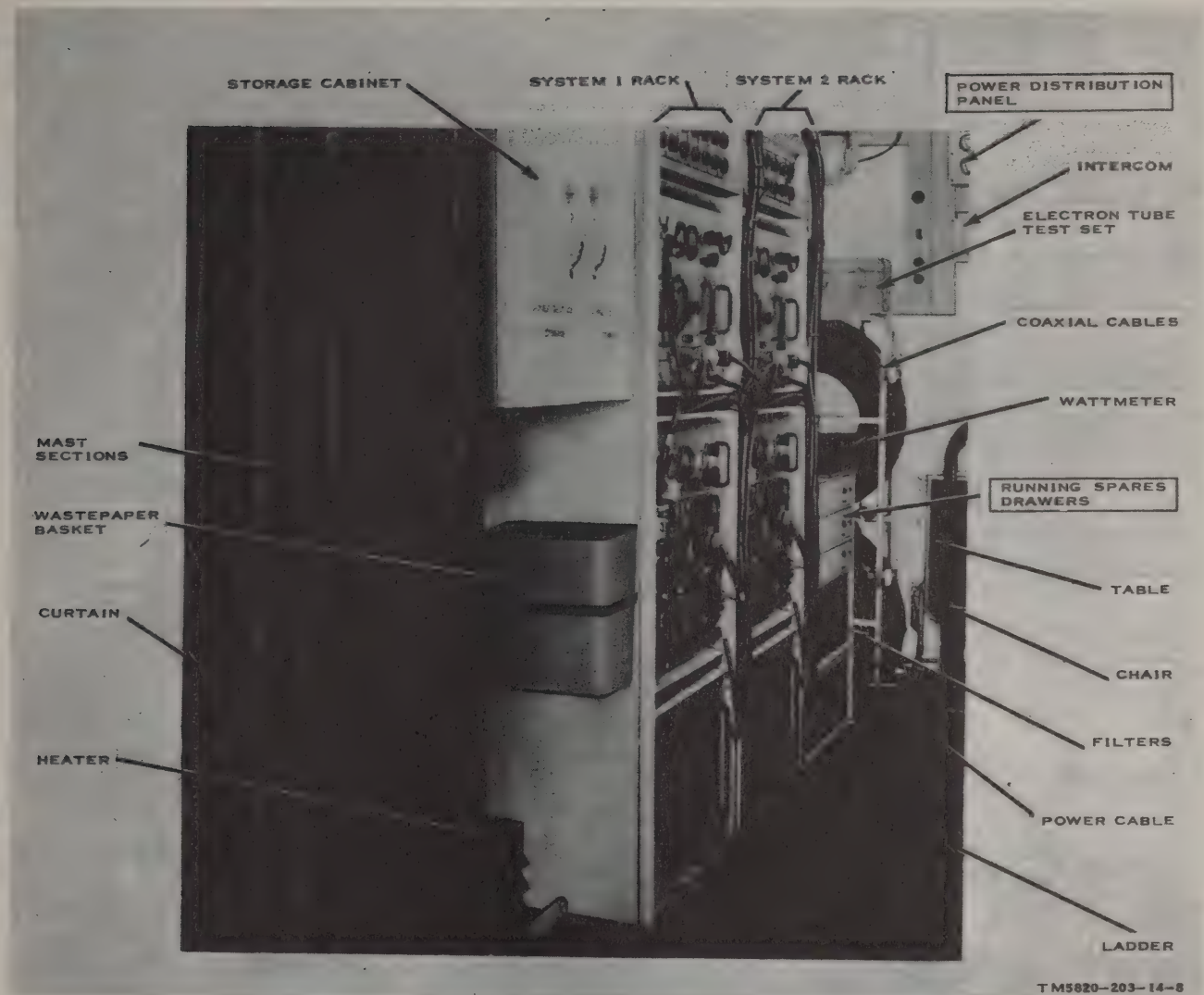


Figure 1-4. Repeater Set, Radio AN/MRC-54(V), interior view, roadside wall.

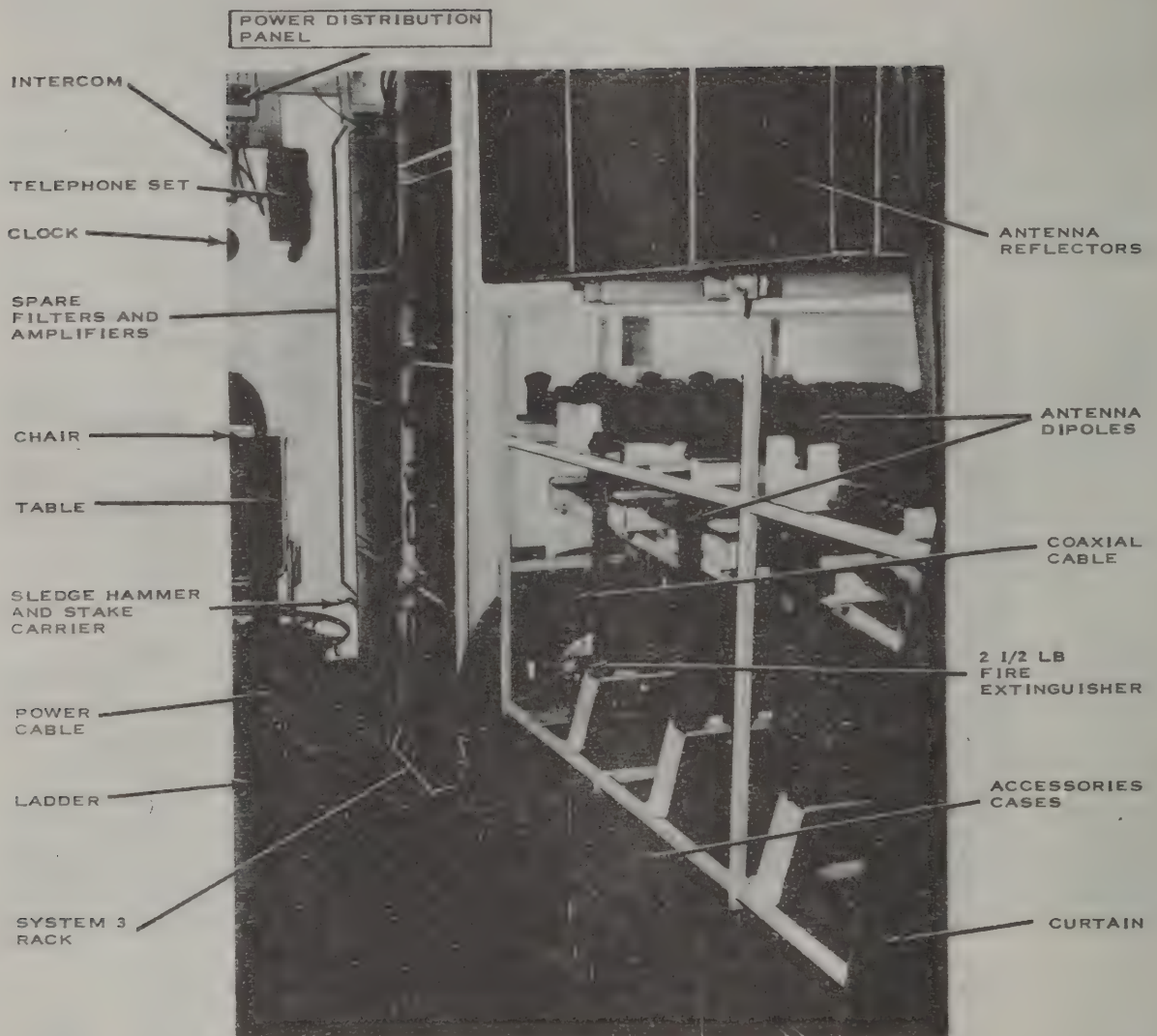
of the power distribution box includes a voltmeter, an ammeter, a MAIN circuit breaker, 12 tributary circuit breakers, and 12 associated glowlamps (fig. 1-7).

d. Electric Heater. During transit, the electric heater is secured to the floor against the roadside wall (A, fig. 6-1). It contains a heating element and a fan for air circulation. Horizontal louvers on the front of the heater are adjustable to deflect the airstream.

e. Exhaust Blowers. The shelter facility includes two exhaust blowers (B, fig. 6-1). Lighttight vents, equipped with hinged covers and rain shields, permit flow of exhaust air to the outside of the shelter.

f. Cables and Cords.

- (1) *Power Cable Assembly CX-4694A/U.* The CX-4694A/U (power cable) is a 100-foot length of three-conductor cable with a watertight power connector at each end (fig. 1-8). It is wound on Cable Reel RC-435/U which is mounted on top of the ladder and secured to the floor of the shelter facility (fig. 1-5).
- (2) *Power Cable Assembly CX-2254/U.* The CX-2254/U (power cable stub) is a 10-foot length of three-conductor cable with a watertight power connector at one end and red, white,



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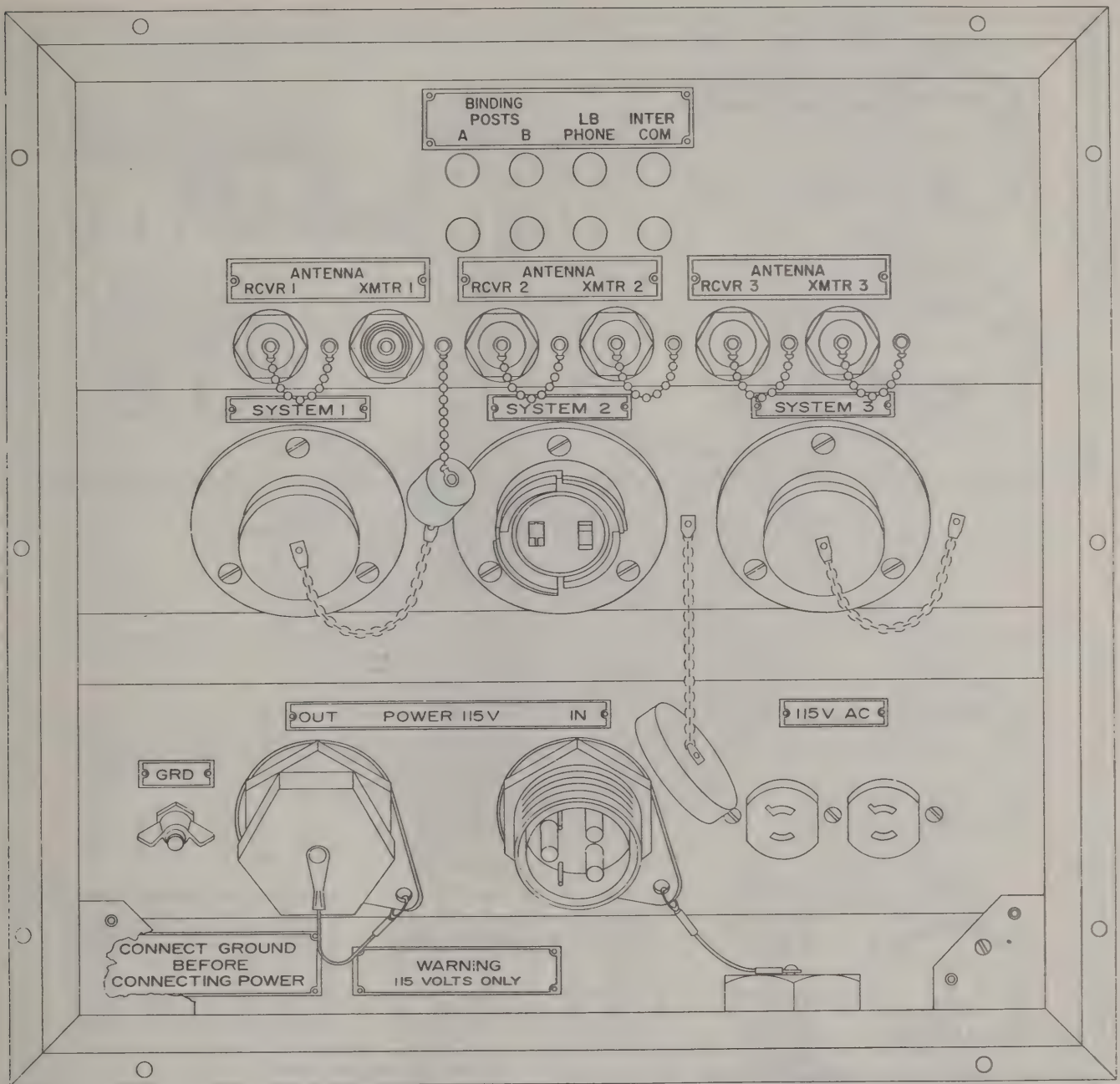
Figure 1-5. Repeater Set, Radio AN/MRC-54(V), interior view, curbside wall.

and black prepared leads at the other end (fig. 1-8). When not in use, it is stored in the accessories and spares cabinet (A, fig. 6-1).

- (3) *Telephone Cable Assembly CX-1606/G*. The CX-16606/G is a 3-foot length of spiral-four cable with a spiral-four connector at each end

(fig. 1-9). It is used to interconnect two of the radio sets for radio repeater operation. When not in use, it is stored in the accessories and spares cabinet.

- (4) *Electrical Cord Assembly CX-4695/U*. Two CX-4695/U's (telephone cords) are furnished for connection



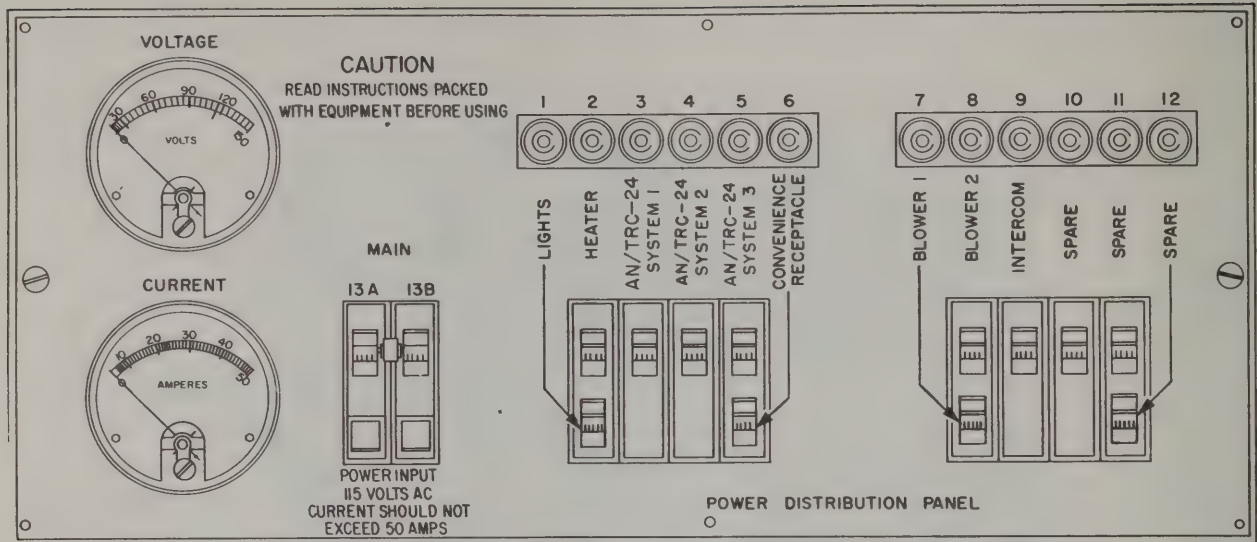
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Figure 1-6. SIGNAL AND POWER ENTRANCE box.

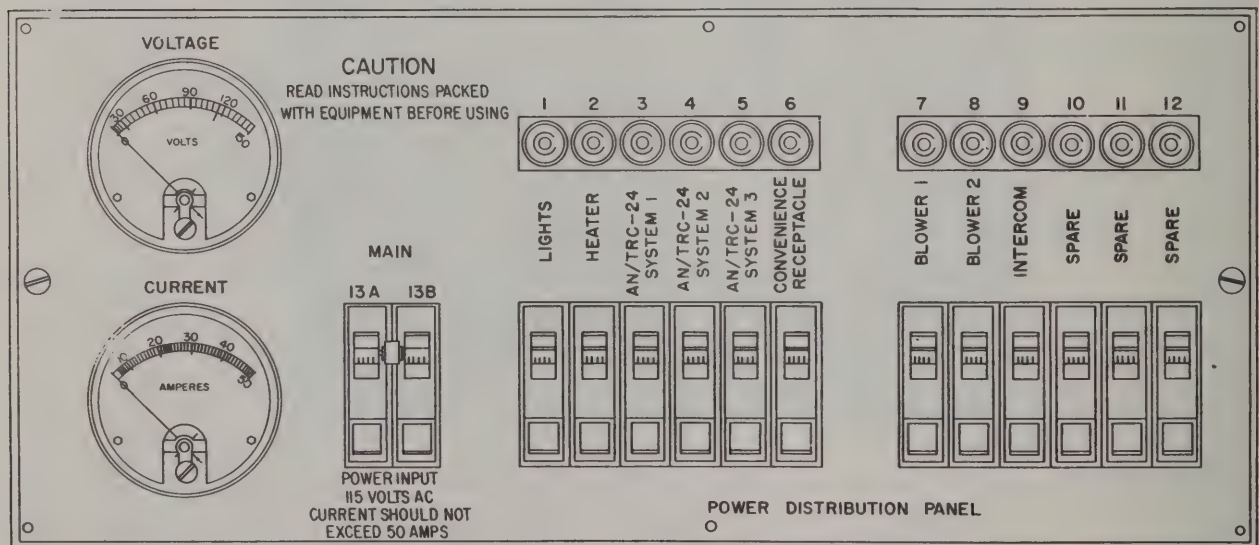
of Telephone Set TA-312/PT and Intercommunication Station LS-147 (*)/FI to the shelter facility jacks (fig. 1-9).

- (5) *Power Cable Assembly CX-4772/U.* The CX-4772/U (fig. 1-9) consists of a 6-foot length of two-conductor

cable with a male plug at one end and a two-conductor female twist-lock connector at the other end. It is provided to permit operation of Power Supply PP-685/TRC (power supply) when removed from its mounting rack for repair or adjustment.



A. PANEL OF S-177A/MRC-54(V) THRU S-177E/MRC-54(V)



B. PANEL OF S-177/MRC-54(V)

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Figure 1-7. Power distribution panels.

When not in use, the CX-4772/U is stored in the accessories and spares cabinet.

- (6) *Power Cable Assembly CX-4773/U.* The CX-4773/U (fig. 1-9) consists of a 6-foot, 2-inch length of two-

conductor cable with a male plug at one end and a three-conductor female twistlock connector at the other end. It is provided to permit operation of Radio Receiver R-417/TRC (receiver) when removed from its

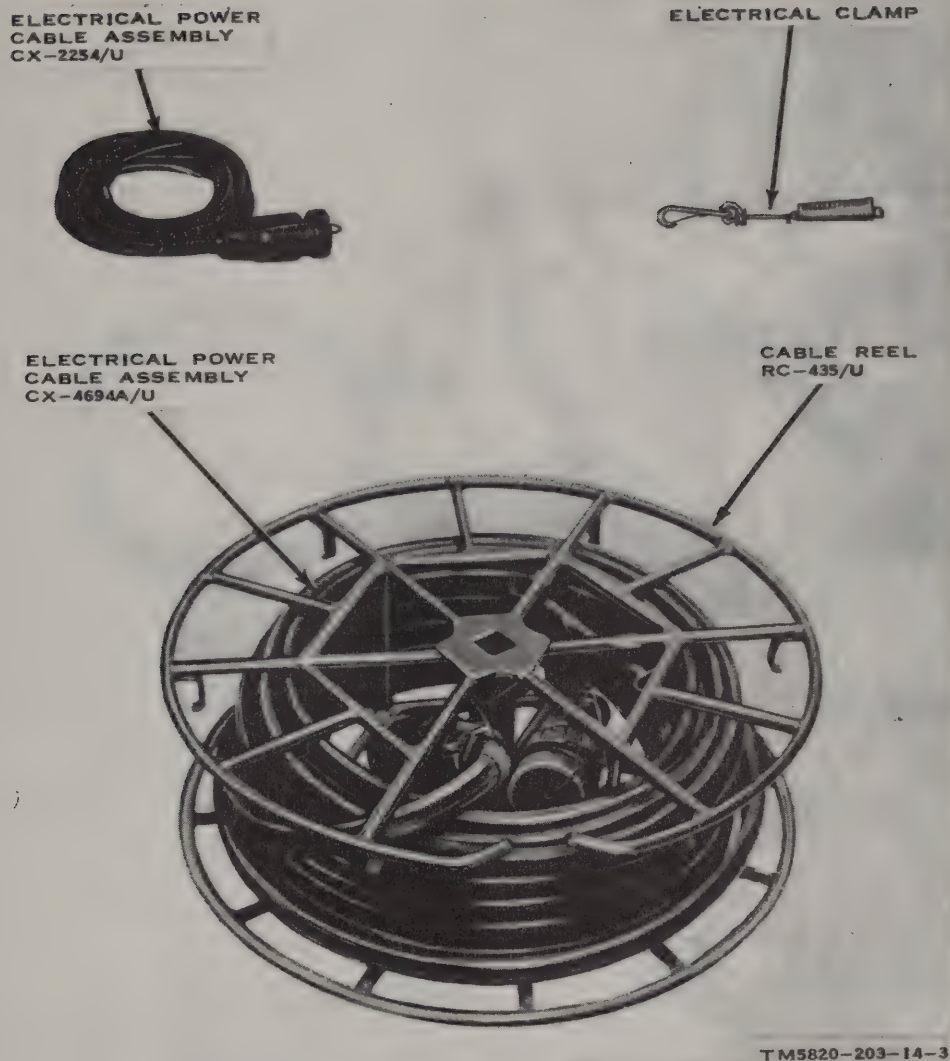


Figure 1-8. Power cable, power cable stub, and electrical clamp.

mounting rack for repair or adjustment. When not in use, the CX-4773/U is stored in the accessories and spares cabinet.

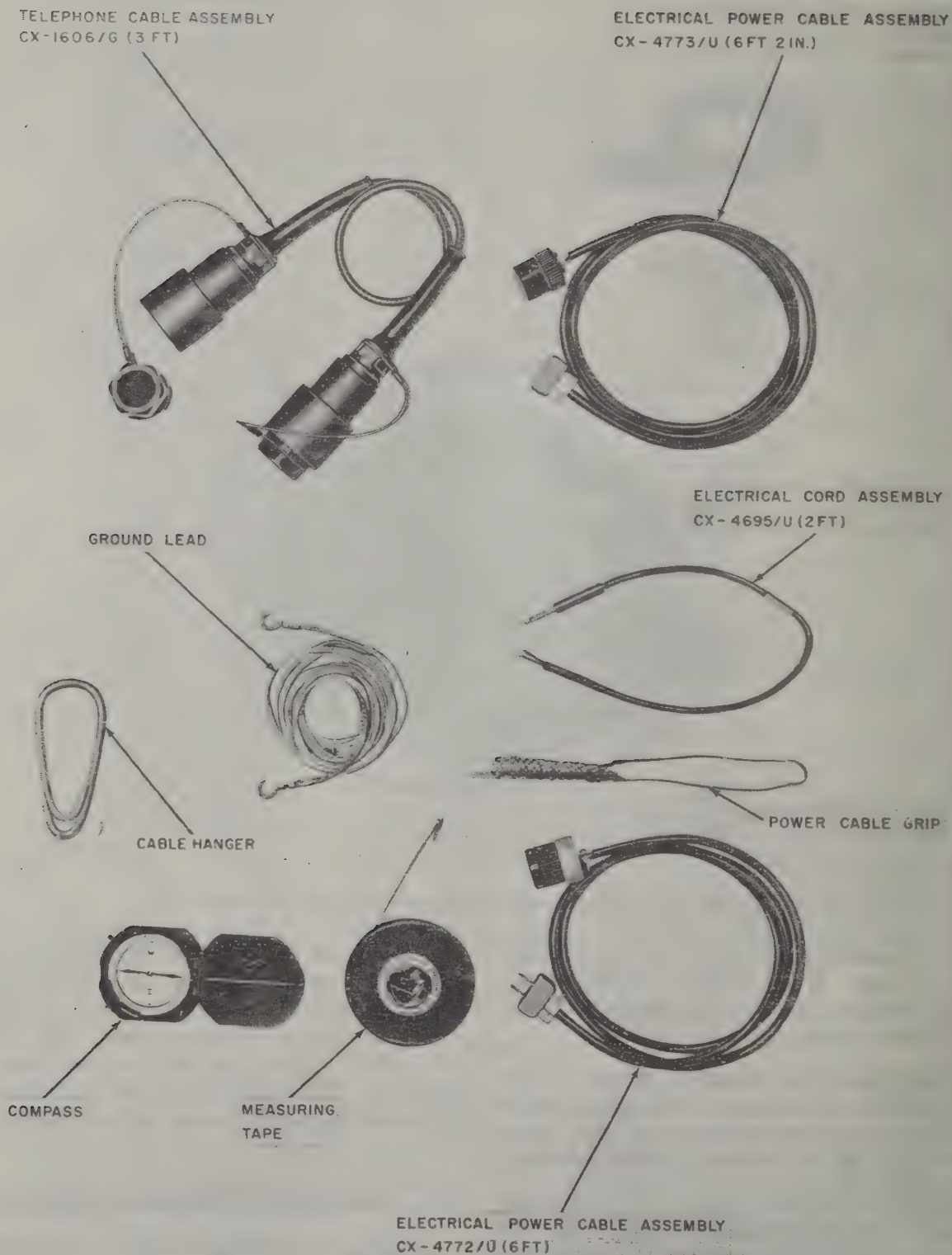
g. Clock and Tool Mounting Board. An 8-day, luminous-dial, 24-hour clock and the tool mounting board are mounted on the front wall of the shelter facility (fig. 1-10 and 6-1).

h. Shelter Facility Running Spares. The shelter facility running spares are shown in figure 1-11. Refer to appendix II for detailed running spares information.

i. Reel Unit RL-31-().* (TM 11-362). The RL-31-(*) consists of an A-shaped frame, axle, one or two brake units, one or two hand-crankers, and miscellaneous items. The frame and axle are stored against the front wall (B, fig. 6-1). The remaining items are stored in the accessories and spares cabinet (A, fig. 6-1).

1-9. Description of Equipment Components

a. Radio Equipment (TM 11-5820-287-10). Radio equipment for three systems is



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Figure 1-9. Miscellaneous components of shelter facility.

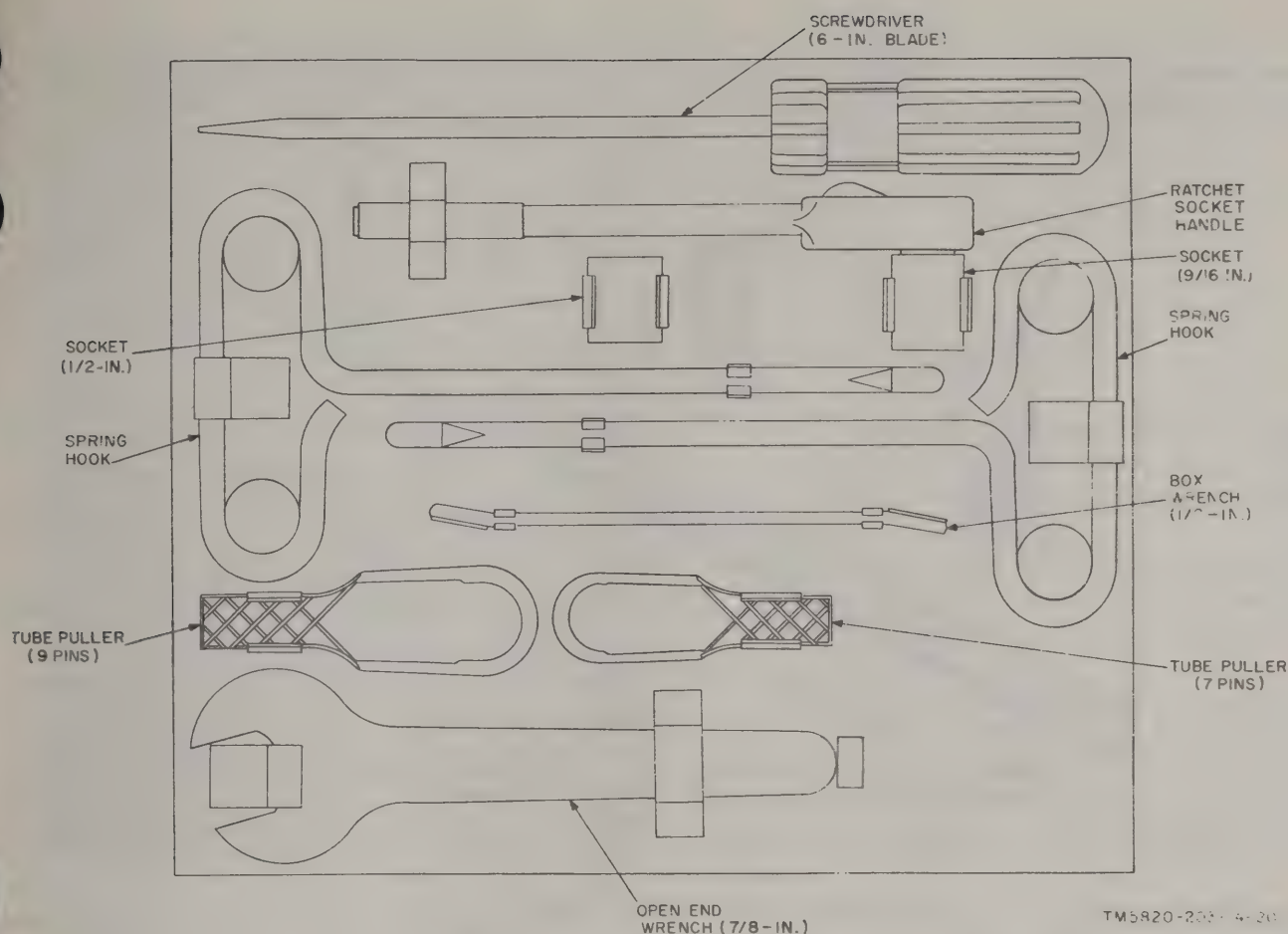


Figure 1-10. Tool mounting board.

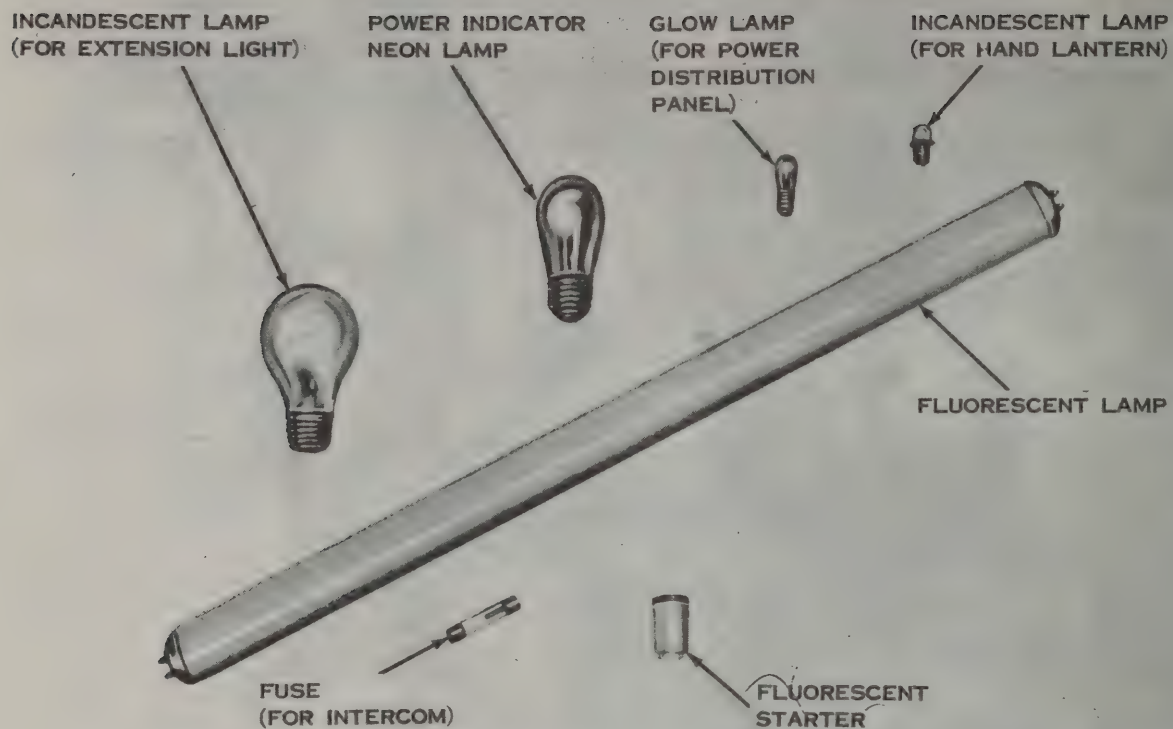
mounted in racks along the roadside and curbside walls (fig. 1-3, 1-4, and 6-1) of the shelter facility. The operating equipment for each system includes one receiver, one transmitter, one power supply, and associated bandpass filters, amplifier, and amplifier-converters. The required antenna masts, antenna components, and radio frequency (rf) cable assemblies are also secured to the curbside and roadside walls. Components provided for B- and C-band operation are shown in the above-referenced figures.

b. Telephone Set TA-312/PT (TM 11-2155). One TA-312/PT (telephone set) is provided for intra-area voice communication. The telephone set, less its canvas case, is arranged for local-battery operation and is mounted on the front wall (B, fig. 6-1). A telephone cord (fig. 1-9) is used to connect

the telephone set to the PHONE jack in the signal duct.

c. Intercommunication Station LS-147()/FI* (TM 11-5830-221-12). The LS-147(*)/FI (intercom) is provided for two-way, non-private voice communication in a system that consists of other intercoms or equivalent equipments. The intercom is mounted on the front wall (B, fig. 6-1) and a telephone cord is used to connect it to the INTERCOM jack in the signal duct. The intercom is furnished as a component of the S-177(*)/MRC-54(V).

d. Wattmeter ME-82/U. One ME-82/U (A, fig. 6-1) is furnished for testing rf output power. Mounting facilities are furnished also for one Multimeter TS-352/U and one Electron Tube Test Set TV-7B/U, which are not furnished as part of the AN/MRC-54(V); the TS-352/U and TV-7B/U must be requisitioned as separate items.



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Figure 1-11. Shelter facility running spares.

CHAPTER 2

INSTALLATION

Section I. PREINSTALLATION PROCEDURES

2-1. Unpacking and Checking

a. Packing Data. For shipment, the AN/MRC-54(V) is packed in a reusable wooden crate (fig. 2-1). The shelter facility is anchored to eyebolts in the skid base of the crate and is blocked at the sides and ends with lumber. The skid base has side entries for handling with a forklift. The dimensions of the crate are 155 by 93 by 94 inches, the volume is 874 cubic feet, and the weight of the crated AN/MRC-54(V) is approximately 8,000 pounds (all equipment items installed in shelter facility) or approximately 3,000 pounds (S-177(*)/MRC-54(V) only, with equipment items packaged separately).

b. Removal of Contents. Select a location where the equipment may be unpacked without exposure to the elements.

- (1) Unfasten the lag bolts with wrenches and remove the top, end, and side assemblies from the crate base (fig. 2-1).

Caution: Be careful when handling tools, because the aluminum skin of the shelter can be damaged easily.

- (2) Detach the tiedowns from the eyebolts in the base of the crate. When cables or tiedown rods are used for anchoring, loosen the turnbuckles.
- (3) Remove the wood blocking from the ends and sides of the shelter.
- (4) Remove the shelter facility from the crate base. Use overhead lifting equipment whenever available; if it is not available, remove the headers

from the crate base. Lift the shelter facility from both ends with forklifts, or drag it from the crate base by the towing eyes.

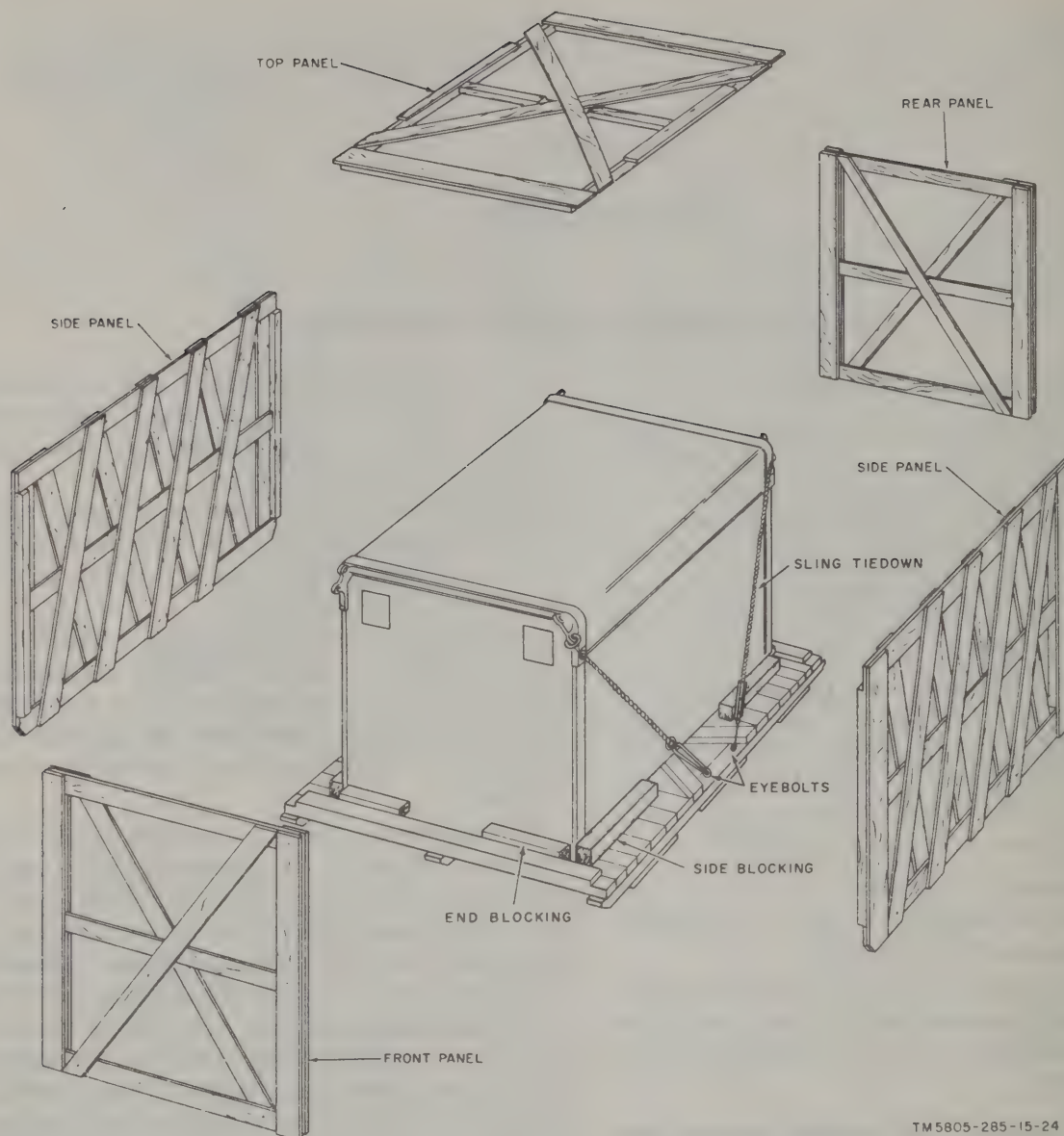
- (5) Send the crate to a local storage area, if practicable. The crate may be reused for shipment of similar shelter facilities.

c. Checking Shelter Contents. Check the contents of the AN/MRC-54(V) against the packing list. If the packing list is not available, use the basic issue items list (appx II) to check the equipment that *probably* was packed.

d. Unpacking and Checking Separately Packed Equipment Components. If the equipment components for the AN/MRC-54(V) are packed separately, follow the unpacking instructions given in the appropriate technical manuals (appx I). After unpacking, check the equipment against the packing lists in the containers, if available. The tables of components or the basic issue items list in the appropriate technical manuals can be used, when packing lists are not available, to check the items that were *probably* packed.

Note: Install the shelter facility in a truck as described in paragraph 2-4b *before* installing the equipment components (para 2-2 and 2-3) if *all* of the following conditions apply:

- (1) When received, the shelter facility and equipment components are packed separately.
- (2) The AN/MRC-54(V) is to be operated from a truck.
- (3) A lifting device, capable of lifting at least 1,600 pounds (but less than 6,500 pounds) is available.



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Figure 2-1. Packing diagram.

2-2. Installing Equipment Components

a. Preparation.

- (1) Remove the power cable and ladder from the shelter facility (F, fig. 6-1).
- (2) Ground the shelter facility (para 2-5).
- (3) Connect ac power to the shelter facility (para 2-6).

- (4) Turn on the lights and, if appropriate, the heater or exhaust blowers (para 2-7).

b. Installation of TA-312/PT.

- (1) Remove the telephone set from its canvas case and install two Batteries BA-30 into the telephone set (TM 11-2155).

Note: If the mounting bracket in the shelter facility includes an L-shaped clamping arm (fig. 2-2), install the telephone set as described in (2) below; if the mounting bracket includes a hinged telephone clamp and a cable-type handset strap (B, fig. 6-1), install the telephone set as described in (3) below.

- (2) Loosen the wingnut on the side of the clamping arm, turn the clamping arm downward, and remove the flat-head screw and the round holding plate from the side of the mounting bracket.
 - (a) Insert the round holding plate into the buzzer recess of the telephone set, insert the telephone set into the mounting bracket, and use the flathead screw to secure the holding plate to the inner side of the mounting bracket.
 - (b) Raise the clamping arm to the clamping position, press it against the handset, and tighten the wingnut.
- (3) Disconnect the handset strap and telephone clamp from their associated latches.
 - (a) Place the telephone set into the mounting bracket, remove the handset from the handset bracket, and use the telephone clamp to secure the telephone set firmly in the mounting bracket.
 - (b) Replace the handset into the handset bracket and fasten the handset strap to its associated latch.
- (4) Connect the telephone cord to the binding posts of the telephone set and insert the plug of the telephone cord into the LB PHONE jack on the front wall of the shelter facility.

c. Installation of Radio Equipment.

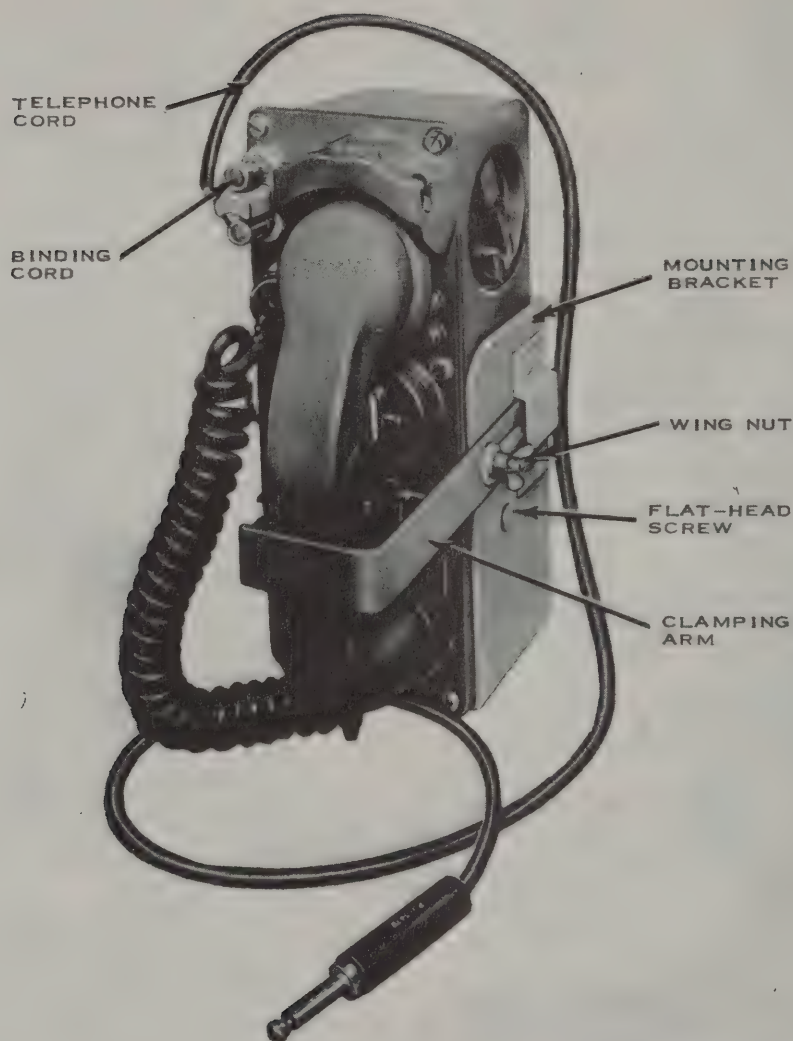
- (1) Install each receiver, transmitter, and power supply in the shelter facility (A and C, fig. 6-1) as follows:
 - (a) Remove the cover from the transit case and release the fasteners that secure the equipment chassis to the rack frame in the transit case. Slide the equipment chassis out of

the rack frame as far as it will go, and then press the drawer stop levers and remove the chassis from the transit case.

- (b) Use the spring hook (fig. 1-10) to disengage the retainer spring from the hook at each corner of the rack frame (fig. 2-3). Remove the rack frame from the transit case, insert it into the appropriate equipment mounting rack in the shelter facility, and secure it in place with the retainer springs from the transit case.
- (c) Slide the equipment chassis into the rack frame and secure it in place with the fasteners.
- (2) Refer to TM 11-5820-287-20 to determine the amplifier, amplifier-converter, and bandpass filters that are required for the desired operating frequencies. Install the selected equipment components into the transmitters and receivers. Store the unused amplifiers, amplifier-converters, and bandpass filters in the storage locations shown in A and C, figure 6-1. Use the procedure described in (1) above to install the unused components.
- (3) Install the running spares drawers and Wattmeter ME-82/U at the locations shown in A, figure 6-1.

d. Interconnection of Radio Equipment. The signal duct of the shelter facility contains the wiring required to connect the various components to the SIGNAL AND POWER ENTRANCE box. The 115-volt ac supply is wired through the ac power duct from the POWER DISTRIBUTION PANEL and circuit breakers to receptacles at the components. Connect the operating components to the shelter facility wiring as described in (1) through (8) below.

- (1) Connect separate black ground wires (from the signal duct) to the GND binding posts of Power Supply PP-685/TRC, Radio Transmitter T-302/TRC (transmitter), and Radio Receiver R-417/TRC (fig. 6-2).



TM 5805-285-15-25

Figure 2-2. Telephone set installed in mounting bracket.

- (2) Connect the signal duct spiral-four leads to each receiver as follows:

Wire color	Binding post
White pair -----	XMTG
Black pair -----	REC
Black shield -----	GND

- (3) Connect the duct coaxial RF cables from the signal duct to the ANTENNA jacks of each receiver and transmitter.

- (4) Use an Electrical Special Purpose Cable Assembly CX-2253/U to connect the TRANSMITTER jack of each power supply to the POWER SUPPLY jack of the associated transmitter.
- (5) Use an Electrical Special Purpose Cable Assembly CX-2252/U to connect the RECEIVER jack of each transmitter to the TRANSMITTER jack of its associated receiver.

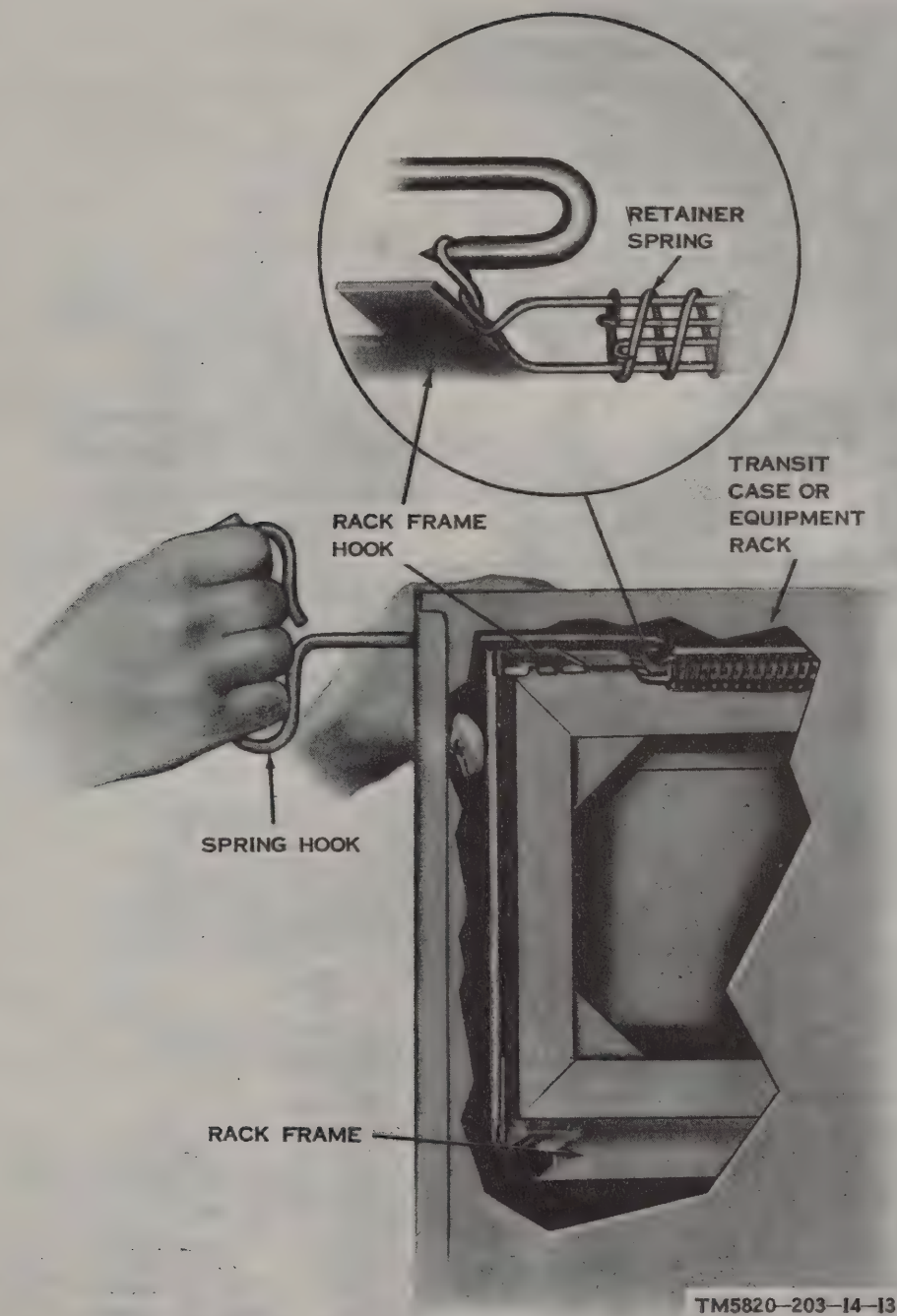


Figure 2-3. Use of spring hook to secure rack frame in equipment rack.

- (6) Remove Handsets H-90/U from the storage cabinet and connect the plug of the cable attached to each Handset H-90/U to the handset jack on one of the receivers.

Caution: Be sure that SYSTEM 1, 2, and 3 circuit breakers of the POWER DISTRIBUTION PANEL are at OFF before performing the procedures in (7) and (8) below.

- (7) Use an Electrical Power Cable Assembly CX-2256/U to connect the POWER jack of each receiver to its associated AN/TRC-24 receptacle in the ac power duct on the ceiling (D, fig. 6-1).
- (8) Use an Electrical Power Cable Assembly CX-2258/U to connect the 115V AC INPUT jack on each power supply to its associated AN/TRC-24 receptacle in the ac power duct on the ceiling.

2-3. Storage of Antenna Components

Note: The procedures below apply *only* to storage of antenna components used for B-band and C-band operation. If other antenna components are used, select an appropriate location in the shelter facility for each component and secure it in place in a manner that is convenient and that will prevent equipment damage.

a. Antenna Reflectors AT-414/TRC (fig. 1-5 and C, 6-1).

- (1) Unfasten and release the two clamp holders from the reflector lower storage channel mountings in the shelter.
- (2) Hold one folded reflector upright with the hinged side at the top.
- (3) Place the hinges up in the ceiling channels of the reflector storage mounting and slide the upright reflector to the rear of the channels.
- (4) Repeat the procedures given in (1) through (3) above for the second reflector except place the hinges of the reflector in the *lower* storage channel mountings.
- (5) Follow the same procedure ((1) through (3) above) for the remaining reflectors.
- (6) Replace the two clamp holders.

b. Antenna Reflector Supports AB-325/TRC.

- (1) Unfasten and open the six retaining clamps of the reflector supports storage holders in the shelter.
- (2) Position the reflector supports as shown in A, figure 6-1.

- (3) Close the retaining clamps and turn the fasteners to secure each reflector support in its mounting.

c. Mast Sections AB-332/G (A, fig. 6-1).

- (1) Unfasten and remove the two retaining bars from the ceiling and floor storage rack holders.
- (2) Place the nine mast section carriers upright in the holder, parallel to the rear wall with the carrying handles facing away from the left wall.
- (3) Replace the retaining bars and turn the fasteners.

d. Radio Frequency Cable Assemblies CG-1030/U and Cable Reels RC-404/TR.

- (1) Unfasten and remove the upper and lower retaining bars from the cable reel storage rack (A, fig. 6-1).
- (2) Place one Cable Reel RC-404/TR in the upper section of the rack and one in the lower section.
- (3) Replace the retaining bars and turn the fasteners.
- (4) Unfasten and open the hinged holder clamp on the lower forward end of the antenna dipole retaining rack (C, fig. 6-1).
- (5) Roll the third Cable Reel RC-404/TR into position against the rack.
- (6) Close the hinged holder clamp and turn the fastener.

e. Antenna Dipoles AT-413/TRC (A, fig. 6-1).

- (1) Unfasten and remove the four retaining bars from the lower middle section of the antenna dipole retaining rack in the shelter.
- (2) Place the C-band dipoles upright into the allocated slot sections of the rack, extending sections at the top and parallel to the right wall. Store six C-band dipoles in each section.
- (3) Replace the four retaining bars and turn the fasteners.
- (4) Place the C-band dipole sections in the holding clips on the shelves of the storage cabinet.

f. Antenna Dipoles AT-412/TRC (A, fig. 6-1).

- (1) Unfasten and remove the four retaining bars from the lower middle section of the antenna dipole retaining rack in the shelter.
- (2) Place the B-band dipoles in the allocated slot sections of the rack as follows:
 - (a) Place the dipoles horizontally and parallel to the wall with the V-head of each positioned vertically.
 - (b) Arrange the dipole from the rear of the rack so that the V-head of the first B-band dipole is positioned towards the rear of the shelter.
 - (c) Arrange the second B-band dipole so that it is in the reverse position of the first.
 - (d) Install and arrange the other B-band dipoles so that their V-heads are alternately positioned to the rear and front of the shelter.
- (3) Replace the two retaining bars and turn the fasteners.
- (4) Place the B-band dipole sections in the holding clips on the shelves of the storage cabinet.

g. Stake Carrier (C, fig. 6-1).

- (1) Unfasten and remove the retaining

bar of the stake carrier storage mounting.

- (2) Place the stake carriers upright and flat against the front wall, with the hammer side of the carrier facing away from the right wall.
- (3) Secure the sledge hammer to one of the stake carriers.
- (4) Replace the retaining bar and turn the fasteners.

h. Miscellaneous Antenna and Mast Components.

- (1) Store the maintenance cables (part of Power Accessories Group OA-1676/GRC) in the storage cabinet (A, fig. 6-1).
- (2) Store the Handsets H-90/U and Radio Frequency Cable Assemblies CG-1031/U in the storage cabinet.
- (3) Install the tools (part of Antenna Group OA-1389/GRC and Power Accessories Group OA-1676/GRC) on the tool mounting board (fig. 1-10).
- (4) Store all remaining miscellaneous items in either the accessories and spares cabinet or in the three Accessories Cases CY-1392/GRC.
- (5) Secure the three Accessories Cases CY-1392/GRC in the positions shown in C, figure 6-1.

Section II. INSTALLATION PROCEDURES

2-4. Siting

The best operating site for the AN/MRC-54(V) is determined by the tactical situation, the antenna siting considerations, and other local conditions. Refer to TM 11-5820-287-20 for siting information.

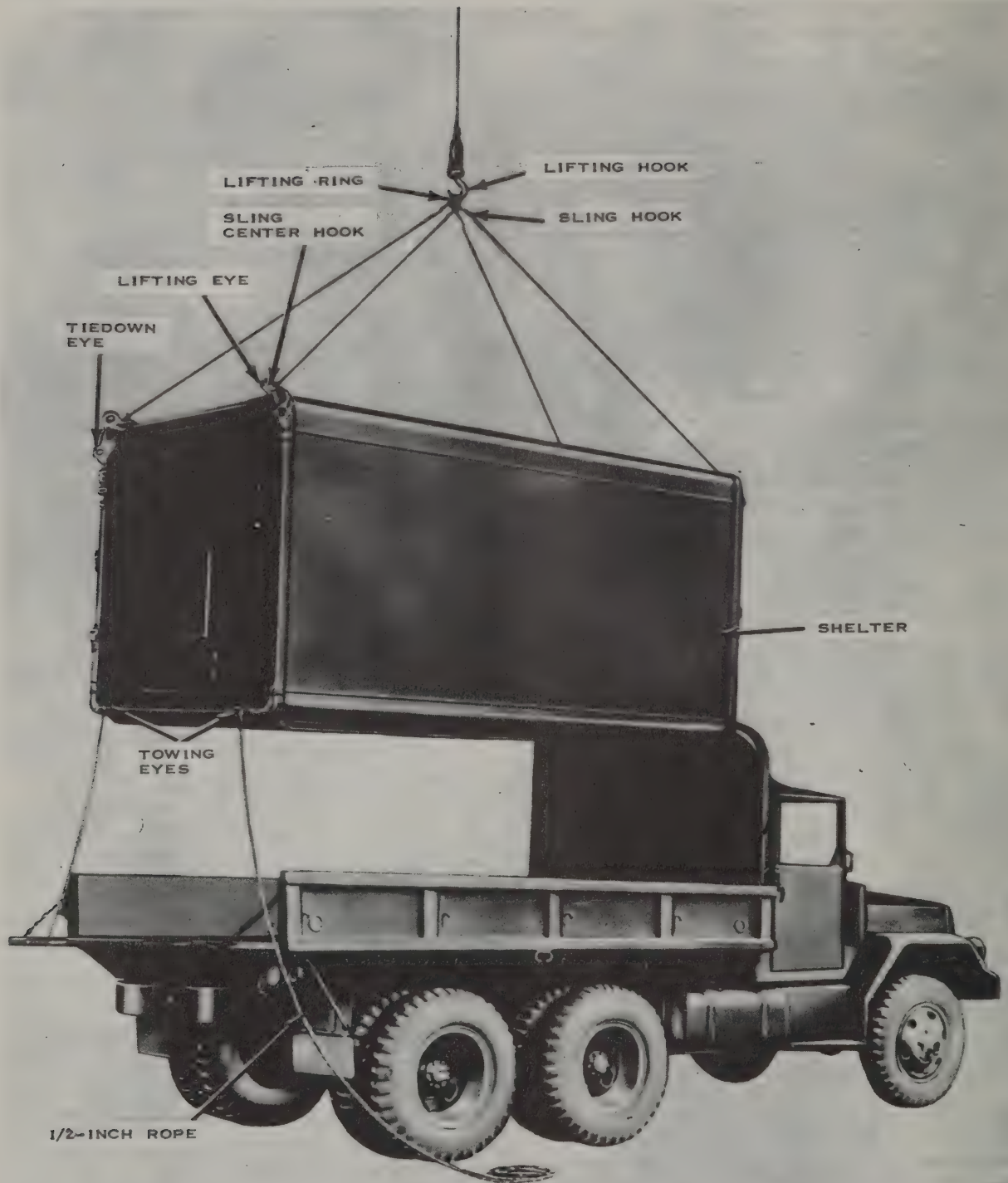
Note: To install the AN/MRC-54(V) on the ground or on a truck, four men and a device capable of lifting either 1,600 pounds (shelter facility only) or 6,250 pounds (shelter facility with equipment installed) are required.

a. Ground Installation. When installed on the ground, the shelter facility should be placed on a firm, dry surface with good drain-

age; the site should be prepared and leveled. If possible, the shelter facility should be placed on concrete blocks or wooden beams, and positioned to facilitate connections to the SIGNAL AND POWER ENTRANCE box. If a generator set is used to provide ac power, it should be located approximately 75 feet away from the shelter to minimize fire hazard and generator noise interference.

b. Truck Installation.

- (1) Use the sling center hooks (hook nearest turnbuckle) to connect the four sling assemblies to the four lifting eyes of the shelter (fig. 2-4). Connect the four sling hooks, at the



TM5820-533-14-12

Figure 2-4. Lifting AN/MRC-54(V).

opposite end of the cables to the lifting ring, and place the lifting ring over the lifting hook of the lifting device.

- (2) Tie a 1/2-inch rope (at least 15 feet long) to each rear towing eye.

Warning: To avoid injury to personnel or damage to the equipment, only the personnel engaged in the actual loading operation should be permitted near the truck, lifting device, and shelter. To eliminate confusion, all instructions must come from the loading crew supervisor.

- (3) Lower the tailgate of the truck, make sure that all tools and equipment have been removed from the truck body, and slowly lift the shelter high enough to clear the body of the truck.

Note: The entrance door of the shelter must be at the rear of the truck, and the front end of the shelter must be flush against the front of the truck body.

Warning: All personnel must remain clear of the truck while the shelter is being lowered onto the truck.

- (4) Position a man at the free end of the 1/2-inch ropes to guide the shelter, back the truck slowly into position under the shelter, and slowly lower the shelter onto the truck.
- (5) Remove the lifting ring from the lifting hook and disassemble the lifting ring and the sling hooks. Remove the sling center hooks from the lifting eyes and the 1/2-inch ropes from the towing eyes. Raise and secure the truck tailgate.
- (6) Install the two tiedown ring assemblies (part of sling assembly) above the center support of the two cargo bedside rails of the truck (A, fig. 2-5).
- (7) At each side of the shelter, use the hook at the end farthest from the turnbuckle to hook each sling assembly to a tiedown eye of the shelter.

Secure the sling hooks at the opposite end of the cables to the tiedown ring (B, fig. 2-5).

- (8) Tighten all turnbuckles evenly by hand, and then turn each turnbuckle an additional one-half turn with a bar or rod inserted into the slot of the turnbuckle.

Caution: Do not overtighten the turnbuckles.

- (9) After the truck is driven to the operating site, lower the tailgate to the *horizontal* position; then remove the ladder from the shelter and secure it to the left side of the tailgate.

c. Unloading Shelter. To unload the shelter, reverse the procedures given in *b* above.

2-5. Grounding

The AN/MRC-54(V) must be properly grounded *before* input power is connected. Select a grounding site (within 6 feet of the SIGNAL AND POWER ENTRANCE box) that is low and damp, and that will not interfere with the entrance door, field wires, antenna cables, or power cables.

a. Loosen and lift the cover of the SIGNAL AND POWER ENTRANCE box (fig. 1-3).

b. Use the cover support to secure the cover in the open position.

c. Remove the ground rod and the sledge hammer from their mountings in the shelter.

d. Remove any paint or grease from the ground rod.

e. Scoop out a small hole about 6 inches deep at the site selected.

f. Drive the ground rod into the hole until the top of the ground rod is approximately 3 inches above the *bottom* of the hole.

g. Saturate the ground around the rod with water to keep it moist.

h. Remove a 10-foot ground lead from the accessories and spares cabinet.

i. Connect one end of the ground lead to the ground rod, and the other end to the GRD terminal at the bottom of the SIGNAL AND POWER ENTRANCE box (fig. 1-6).

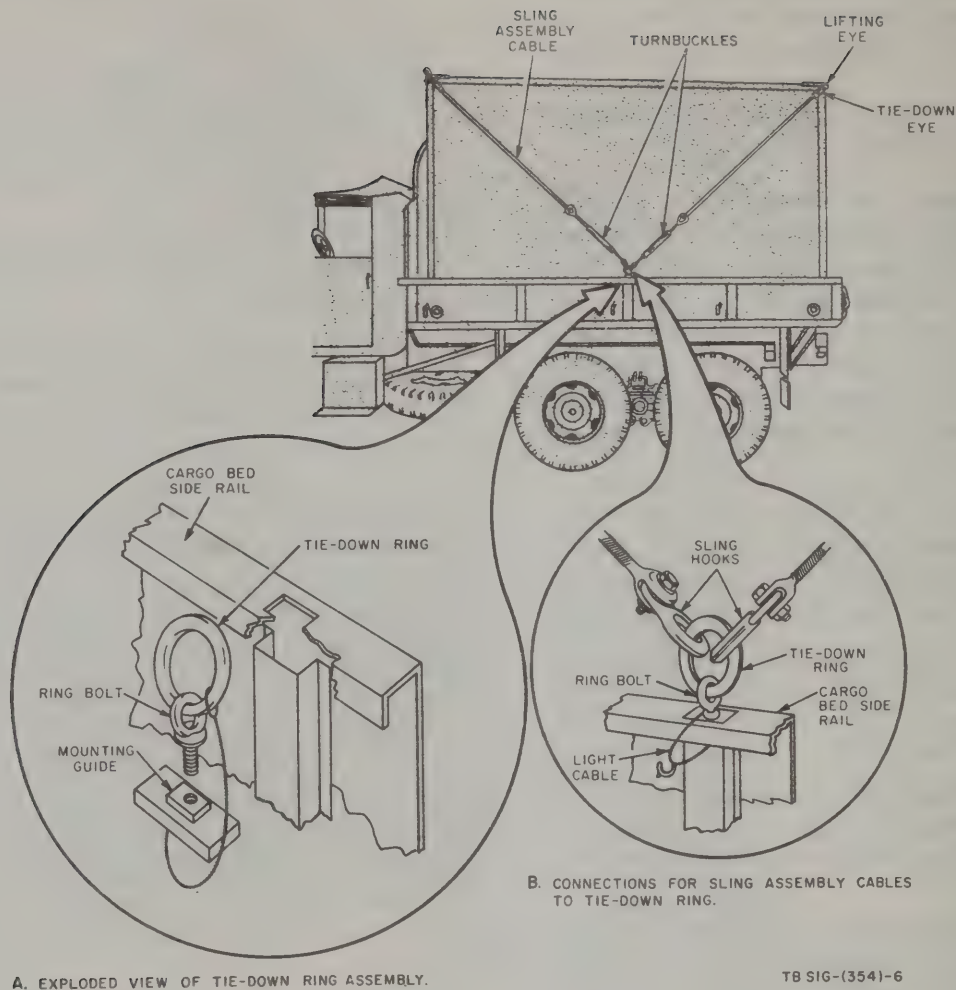


Figure 2-5. Securing AN/MRC-54(V) in truck.

j. If a generator set is used for supplying ac power, ground it in the same manner as the shelter.

2-6. Power Connections

Caution: Grounding of connections (para 2-5) must be completed before power is connected to the AN/MRC-54(V).

The 115-volt (± 10 percent), 50-60 cycles per second (cps), single-phase power required for the AN/MRC-54(V) may be obtained from a generator set or a commercial power source. If a generator set is to provide power for the AN/MRC-54(V), connect ac power to the shelter facility as described in *a*

and *b* below; otherwise, connect power as described in *a* and *c* below.

a. Preliminary Procedures.

- (1) Make sure that all the shelter facility circuit breakers and equipment power switches are in their *off* positions.
- (2) Remove the power cable assembly and cable reel from the shelter facility (F, fig. 6-1) and unwind the power cable assembly from the cable reel.

b. Connection to Generator Set.

- (1) Connect one end of the power cable assembly to the right-hand POWER receptacle in the SIGNAL AND

POWER ENTRANCE box of the shelter facility (fig. 1-6).

- (2) If the generator set includes an output connector that is compatible with a connector of the power cable assembly, connect the power cable connector to the output connector of the generator set; otherwise refer to the generator set technical manual and connect the red and white (neutral) and black (hot) leads of the power cable stub to appropriate output terminals of the generator set and connect the power cable assembly to the power cable stub.

c. Connection to Commercial Power Source.

- (1) Turn off or disconnect the commercial power before making any connections.
- (2) If the power source is a 120-volt, 50- or 60-cps, single-phase, two-wire source, connect the red and white wires of the power cable stub to the neutral wire, and connect the black wire of the power cable stub to the hot wire.
- (3) If the power source is a 110- to 220-volt, 50- or 60-cps, single-phase (or two-phase), three-wire distribution system, connect the red and white wires of the power cable stub to the neutral terminal and the black wire to either of the two hot terminals of the source.
- (4) If the power source is a 110- to 220-volt, 50- or 60-cps, three-phase, four-wire distribution system, connect the red and white wires of the power cable stub to the neutral terminal, and the black wire to the phase 1, phase 2, or phase 3 terminal.
- (5) Connect the power cable stub to one end of the power cable assembly, and connect the other end of the power cable assembly to the right-hand POWER connector in the SIGNAL AND POWER ENTRANCE box.

2-7. Energizing Ac Circuits

a. If a generator set is used to supply the ac power, start the generator; if a commercial power source is used, apply power to the source terminals.

b. Operate the MAIN circuit breaker on the power distribution panel (fig. 1-7) to ON.

c. Operate the LIGHTS circuit breaker to ON and the FLUORESCENTS switch (E, fig. 6-1) to ON. Operate the NORMAL-BLACKOUT switch to NORMAL. If blackout conditions are required, operate the NORMAL-BLACKOUT switch to BLACKOUT.

d. Check the voltmeter (fig. 1-7); it should indicate 115 volts ± 10 . Check the ammeter; it should indicate less than 2 amperes.

e. Open the blower vents and the air filter cover on the outside of the shelter. Operate the BLOWER 1 and BLOWER 2 circuit breakers on the POWER DISTRIBUTION PANEL to ON to check operation of the blowers. If blower operation is not required, set the BLOWER circuit breakers to OFF.

2-8. Installation of Antenna Systems

Warning: During assembly and erection of the antenna systems, conform to all safety requirements of TB SIG 291. Injury or DEATH can result from failure to comply with all safety requirements.

The AN/MRC-54(V) includes three antenna masts and sufficient antenna components to provide a separate antenna system for each of the three systems of radio equipment in the shelter facility. Select suitable antenna sites and assemble and erect the antennas as described in TM 11-5820-287-20. Connect the antenna rf cable assemblies to the appropriate ANTENNA connectors in the SIGNAL AND POWER ENTRANCE box (fig. 1-6).

2-9. Signal Circuit Connections

a. *Intershelter Communication Connections.* For local area communication, connect the external field-wire circuits to the appropriate

binding posts (A, B, LB PHONE, or INTER-COM) in the SIGNAL AND POWER ENTRANCE box (fig. 1-6).

b. Spiral-Four Cable Connections.

- (1) *Repeater set operation.* If the AN/MRC-54(V) is to be operated as a radio repeater set, use Telephone Cable Assembly CX-1606/G (fig. 1-9) to interconnect the appropriate two of the three SYSTEM connectors in the SIGNAL AND POWER ENTRANCE box (fig. 1-6).

Note: The SYSTEM 1 connector in the SIGNAL AND POWER ENTRANCE box is associated with the left-hand group of radio equipment along the roadside wall of the shelter facility (A, fig. 6-1); the SYSTEM 2 connector is associated with the right-hand group of equipment; and the SYSTEM 3 connector is associated with the radio equipment mounted against the roadside wall (C, fig. 6-1).

- (2) *Operation as terminal set.* If the AN/MRC-54(V) is to be used as a radio terminal set for operation with telephone carrier terminal equipment, use spiral-four cables (not furnished as part of the AN/MRC-54

(V)) to connect the appropriate SYSTEM connectors in the SIGNAL AND POWER ENTRANCE box to the telephone carrier terminal equipment.

2-10. Equipment Checks and Adjustments

a. Heater. Connect the heater power cord to the adjacent HEATER receptacle. Operate the HEATER circuit breaker on the POWER DISTRIBUTION PANEL to ON and operate the heater controls to check the heater. If continued operation of the heater is not required, set the heater ON-OFF switch and the HEATER circuit breaker to OFF.

b. Radio Equipment.

- (1) Check for the presence of each of the cable assemblies and duct ground wires and cable shown in figure 6-5. Check each spiral-four and ground connection for tightness. Check each cable connector for proper seating and tightness.
- (2) Perform the radio equipment installation adjustments as described in TM 11-5820-287-20.

CHAPTER 3

OPERATING INSTRUCTIONS

3-1. Types of Operation

(fig. 1-2)

The AN/MRC-54(V) normally is operated as a radio repeater between radio terminals. However, it also may be used as a radio terminal when connected to telephone terminal equipment.

3-2. Operating Controls and Indicators

This paragraph identifies and describes the function of each of the controls and indicators of Shelter, Electrical Equipment S-177(*)/MRC-54(V). Refer to the appropriate equipment technical manuals (appx I) for information concerning the controls and indicators that are part of the radio equipment, intercom, and telephone set.

a. POWER DISTRIBUTION PANEL (fig. 1-7).

Control or indicator	Function and description
MAIN circuit breaker -----	Two ganged 50-ampere circuit breakers used as on-off switch and overload protection of ac input power circuitry.
Tributary circuit breakers:	Twelve two-position circuit breakers used to provide on-off control and overload protection of tributary circuits listed below.
1—LIGHTS -----	Controls ac power to lights.
2—HEATER -----	Controls ac power to heater receptacle.
3—AN/TRC-24 SYSTEM 1 -----	Controls ac power to AN/TRC-24 NO. 1 receptacles (D, fig. 6-1).
4—AN/TRC-24 SYSTEM 2 -----	Controls ac power to AN/TRC-24 NO. 2 receptacles (D, fig. 6-1).
5—AN/TRC-24 SYSTEM 3 -----	Controls ac power to AN/TRC-24 NO. 3 receptacles (D, fig. 6-1).
6—CONVENIENCE RECEPTACLE -----	Controls ac power to convenience receptacles J-24 and J-25.
7—BLOWER 1 -----	Controls ac power to blower No. 1.
8—BLOWER 2 -----	Controls ac power to blower No. 2.
9—INTERCOM -----	Controls ac power to INTERCOM receptacle.
10, 11, and 12 SPARE -----	Spare circuit breakers available for use as required.
VOLTAGE meter (voltmeter) -----	Indicates ac voltage input to shelter facility (0- to 150-volt range).
CURRENT meter (ammeter) -----	Indicates current being used by AN/MRC-54(V) (0- to 50-ampere range).

b. Miscellaneous Switches and Indicators.

Control or instrument	Function and description						
NORMAL-BLACKOUT switch (E, fig. 6-1) -----	Two-position switch that controls all lighting in shelter as follows: <table border="1"> <thead> <tr> <th>Sw pos</th><th>Function</th></tr> </thead> <tbody> <tr> <td>NORMAL</td><td>Permits fluorescent lights to be controlled by light switches in ac power duct.</td></tr> <tr> <td>BLACKOUT</td><td>Permits door microswitch to control all fluorescent lights.</td></tr> </tbody> </table>	Sw pos	Function	NORMAL	Permits fluorescent lights to be controlled by light switches in ac power duct.	BLACKOUT	Permits door microswitch to control all fluorescent lights.
Sw pos	Function						
NORMAL	Permits fluorescent lights to be controlled by light switches in ac power duct.						
BLACKOUT	Permits door microswitch to control all fluorescent lights.						
Door microswitch -----	Controls all fluorescent lights when NORMAL-BLACKOUT switch is at BLACKOUT. (When door is opened, lights go out; when door is closed, lights go on.)						
FLUORESCENTS switch -----	Two-position ON-OFF switch that controls six fluorescent lights.						
FLUORESCENTS switch (B, fig. 6-1) -----	Two-position ON-OFF switch that controls fluorescent light above table.						
NEON switch (B, fig. 6-1) -----	Two-position ON-OFF switch that controls neon lamp.						
Neon lamp -----	Provides small amount of illumination in blackout curtained area.						

3-3. Starting, Operating, and Stopping Procedures, Radio Equipment

Energize the shelter facility ac circuits as described in paragraph 2-7. Perform the starting, tuning, operating, and stopping procedures of the radio equipment in the AN/MRC-54(V) as described in TM 11-5820-287-10, except omit the procedures pertaining to Transformer, Power, Fixed Autotransformer TF-167/TRC (not furnished as part of AN/MRC-54(V)). When ac power is to be applied to the system 1, 2, or 3 radio equipment, operate the appropriate circuit breaker at the POWER DISTRIBUTION PANEL to ON (fig. 1-7).

3-4. Operation of Shelter Facility Components

Follow the procedures given below to place the shelter facility components into operation.

a. Electric Heater.

- (1) Plug the power cord into the HEATER receptacle.
- (2) Operate the heater controls as described on the instruction plate of the heater.

b. Intercommunication Station LS-147()/FI (fig. 1-6).*

- (1) Plug the power cord into the INTERCOM receptacle.
- (2) Operate the OFF-SEND switch to 5 (approximately midpoint). The glowlamp will light.
- (3) Operate the PRESS-TO-TALK switch and speak into the speaker-microphone on the front panel; replace the PRESS-TO-TALK switch to receive.

Note: The OFF-SEND switch does not have to be turned on to receive a call.

- (4) Adjust the RECEIVE control to regulate the volume of incoming calls.

Caution: Before operating the blowers, open the airfilter cover in the shelter door and the blower vent covers on the front of the shelter.

c. Exhaust Blowers. Check to be sure the blower vents are open and operate the BLOWER 1 and BLOWER 2 circuit breakers (fig. 1-7) to ON as desired.

3-5. Operation Under Adverse Climatic Conditions

The AN/MRC-54(V) has been designed to operate in extremely hot and cold climates. The shelter offers complete protection from the

elements for personnel and equipment; however, when the SIGNAL AND POWER ENTRANCE box (fig. 1-3) is exposed to adverse conditions, the following precautions are necessary.

a. Cold Climates. Extreme cold causes cables and wires to become hard, brittle, and difficult to handle. Be careful when handling the cables and connecting them to the shelter so that kinks and unnecessary loops will not result in permanent damage. Make sure that binding posts and cable receptacles on the outside of the shelter are free of frost, snow, and ice. Replace the covers on the receptacles, and close the cover on the SIGNAL AND POWER ENTRANCE box when the box is not in use. Lower the folding side panels when the SIGNAL AND POWER ENTRANCE box

cover is open. Replace the connector cover as soon as a cable is disconnected. Never drag or place an open connector in the snow.

b. Hot Climates. In hot, dry climates, connectors, receptacles, and binding posts are subject to damage from dirt and dust. Replace the covers on the connectors and receptacles and close the cover on the SIGNAL AND POWER ENTRANCE box when the box is not in use. Lower the folding side panels when the SIGNAL AND POWER ENTRANCE box is open. Never place an open connector on the ground.

c. Warm, Damp Climates. In warm, damp climates, the equipment is subject to damage from moisture and fungi. Wipe all moisture and fungi from the exterior of the equipment with a lint-free cloth.

CHAPTER 4

MAINTENANCE INSTRUCTIONS

Section I. OPERATOR'S MAINTENANCE

4-1. Scope of Operator's Maintenance

The maintenance duties assigned to the operator of the AN/MRC-54(V) are listed below, together with a reference to the paragraphs covering the specific maintenance functions. The duties assigned do not require tools or test equipment other than those issued with the set.

- a. Daily preventive maintenance checks and services (para 4-4).
- b. Cleaning and touchup painting (para 4-5).
- c. Operator's troubleshooting (para 4-6).
- d. Removal and replacement procedures (para 4-7).

4-2. Preventive Maintenance, General

Preventive maintenance is the systematic care, servicing, and inspection of equipment to prevent the occurrence of trouble, to reduce downtime, and to assure that the equipment is serviceable.

a. *Systematic Care.* The procedures given in this paragraph and in paragraphs 4-3 through 4-5 cover routine systematic care and cleaning essential to proper upkeep of this equipment.

b. *Preventive Maintenance Checks and Services.* The operator's preventive maintenance checks and services chart (para 4-4) outlines functions to be performed each day. These checks and services are to maintain Army elec-

tronic equipment in a combat-serviceable condition; that is, in good general (physical) condition and in good operating condition. To assist operators in maintaining combat serviceability, the chart indicates what to check, how to check, and the normal conditions; the *References* column lists the illustrations, paragraphs, or manuals that contain detailed repair or replacement procedures. If the defect cannot be remedied by the operator, higher category of maintenance or repair is required. Records and reports of these checks and services must be made in accordance with the requirements set forth in TM 38-750.

4-3. Operator's Preventive Maintenance Checks and Services Periods

Preventive maintenance checks and services are required on a daily basis or under the special following conditions.

- a. When the AN/MRC-54(V) is first installed.
- b. Prior to preparing the AN/MRC-54(V) for shipment.
- c. At least once each week if the AN/MRC-54(V) is not in daily use.

4-4. Operator's Daily Preventive Maintenance Checks and Services Chart

Note: If the AN/MRC-54(V) is in continuous use, perform only those items that do not interfere with the operation of the equipment.

Sequence No.	Item to be inspected	Procedure	References
<i>Exterior</i>			
1	Shelter skin -----	Check for skin punctures, tears, or open seams which would permit moisture to enter the shelter wall.	TB SIG 354.
2	Grounding system -----	a. Check for proper installation of grounding system. b. Check for (and tighten) loose ground lead connections.	a. Para 2-5. b. None.
3	Sling assembly (truck installation).	Check sling assembly; it should be tight.	Para 2-4.
4	SIGNAL AND POWER ENTRANCE box.	a. Check for (and remove) dirt, grease, and moisture from around binding posts and receptacles. b. Check for presence of dust covers and receptacle covers on all unused receptacles (fig. 1-6).	a. Para 4-5. b. None
5	Power and signal cable assemblies.	a. Check for and remove grease, oil, and dirt from cable insulation and connectors. b. Check tightness of all locking rings that secure cables to receptacles (fig. 1-6). c. Check cable grips; they should be positioned to relieve strain of cable weight. d. Check for presence of connector covers and dust caps on unused cables (fig. 1-6).	a. Para 4-5. b. None. c. None. d. None.
6	Signal and power cables.	a. Check for (and tighten) any loose connections at all plugs and connectors. b. Check to be sure that insulation is not cut. Remove all kinks and strain.	a. None. b. None.
7	Walls, ceiling, and floor.	Check for holes, open seams, or signs of leakage or water seepage.	TB SIG 354.
8	Batteries and hand lantern.	Check batteries or bulb if hand lantern fails to light (E, fig. 6-1). Wind and set to correct time.	None.
<i>Operation</i>			
9	Knobs, dials, and switches.	While making operational checks (items 11 through 26), make sure that operation of each knob, dial, and switch is free from internal and external binding Para 3-2 and applicable TM's (appx I).	
10	MAIN circuit breaker -----	Operate to ON and observe voltmeter indication. Voltmeter should indicate 115 volts $\pm 10\%$ (fig. 1-7).	
11	LIGHTS circuit breaker.	Operate to ON and note that glow-lamp No. 1 lights (fig. 1-7).	Para. 4-6.
12	FLUORESCENTS switch	Operate to ON and note that fluorescent lamps light (E, fig. 6-1).	Para. 4-6.
13	FLUORESCENTS and NEON switch.	Operate to ON and note that fluorescent light above table and neon light above door light (fig. 6-1).	Para. 4-6.
14	Ammeter -----	Check indication; it should be approximately 1.5 amperes (fig. 1-7).	Para. 4-6.
15	Door microswitch -----	Set NORMAL-BLACKOUT switch to BLACKOUT, open shelter door, and note that fluorescent lamps are extinguished.	Para. 4-6.
16	NORMAL-BLACKOUT switch.	Operate to NORMAL and note that fluorescent lamps light when door is open or closed (E, fig. 6-1).	Para. 4-6.
17	BLOWER 1 circuit breaker.	Open blower vents and air filter cover. Operate BLOWER 1 circuit breaker to ON, glowlamp No. 7 should light and blower No. 1 should operate (B, fig. 6-1).	Para. 4-6.
18	BLOWER 2 circuit breaker.	Operate to ON, glowlamp No. 8 should light and blower No. 2 should operate (B, fig. 6-1).	Para. 4-6.
19	HEATER circuit breaker.	Operate to ON, note that glowlamp No. 2 lights (fig. 1-7).	Para. 4-6.

Sequence No.	Item to be inspected	Procedure	References
20	Heater controls -----	<p>a. Operate for air circulation only. Note that cool air is expelled from front of heater (See instruction plate on heater).</p> <p>b. Operate for heat and air circulation. Note that circulated air is warm.</p> <p>c. Adjust temperature control. Note that heating stops when desired temperature has been reached.</p>	<p>a. Para. 4-6</p> <p>b. Same as a above.</p> <p>c. Same as a above.</p>
21	CONVENIENCE RE- CEPTACLE and SPARE 10, 11, and 12 circuit breakers.	Operate to ON. Note that glowlamps No. 6, 10, 11, and 12 light (fig. 1-7).	Para. 4-6.
22	AN/TRC-24 SYSTEM 1; 2, and 3 circuit breakers.	Operate to ON. Note that glowlamps No. 3, 4, and 5 light (fig. 1-7).	Para. 4-6.
23	Radio equipment -----	Performs daily preventive maintenance checks and services.	TM 11-5820-287-10.
24	INTERCOM circuit breaker.	Operate to ON. Note that glowlamp No. 9 lights (fig. 1-7).	Para. 4-6.
25	LS-147(*)/FI -----	Perform daily preventive maintenances checks and services.	TM 11-5830-221-12.
26	TA-312/PT -----	Perform daily preventive maintenance checks and services.	TM 11-2155.

4-5. Cleaning and Touchup Painting

Warning: Cleaning Compound (FSN 7930-395-9542) is flammable and its fumes are toxic. Do not use near a flame; provide adequate ventilation.

a. *Cleaning.* Use a dry, clean, lint-free cloth or brush to remove dust and dirt. If necessary, moisten the cloth or brush with Cleaning Compound (Federal stock No. 7930-395-9542) to remove grease, oil, and ground-in dirt and dust. After cleaning, wipe dry with a cloth.

b. *Touchup Painting.* Remove rust and corrosion from metal surfaces by lightly sanding them with fine sandpaper. Brush two thin coats of the proper paint on the bare metal to protect it from further corrosion. Refer to the applicable cleaning and refinishing practices specified in SB 11-573 and TB SIG 364.

Caution: Paint per MIL-E-46061 (MO) has been used on the exterior of some shelters to maintain a lower inside temperature when the shelter is located in the direct rays of

the sun. Before doing any touchup painting on the shelter exterior, check for a caution notice inside the shelter door. Do not use any other type of paint for touchup if the shelter has been painted with paint per MIL-E-46061 (MO).

4-6. Operator's Troubleshooting

a. *General.* The symptoms in the operator's troubleshooting chart (b below) are based on the operational checks in the daily preventive maintenance checks and services chart (para 4-4). To troubleshoot the AN/MRC-54(V), perform all functions, starting with item No. 10 in the operator's daily preventive maintenance checks and services chart, and proceed until an abnormal condition is observed. When an abnormal condition is observed, note the item number and turn to the same item number in the troubleshooting chart below. Perform the checks and corrective measures indicated in the troubleshooting chart. If the corrective measures do not result in correction of the trouble, higher level maintenance is required.

b. Operator's Troubleshooting Chart.

Item No.	Trouble symptom	Probable trouble	Checks and corrective measures
10.	a. Voltmeter indicates 0 volt.	a. Trouble may be: (1) Poorly seated power cable connector. (2) No. 115-volt ac input. (3) Defective shelter power circuitry.	a. Corrective measure: (1) Check seating of power cable connector in SIGNAL AND POWER ENTRANCE box (fig. 1-6) (2) Check power source (para 2-6). (3) Higher level maintenance required.
11	b. Voltage indication is abnormally high or low. LIGHTS glowlamp fails to light.	b. Defective power source.	b. Check power source para 2-6). a. Replace glowlamp (para 4-7). b. Higher level maintenance required.
12	All six aisle fluorescent lamps fail to light.	a. Defective glowlamp No. 1. b. Defective POWER DISTRIBUTION PANEL.	a. Replace fluorescent lamps (para 4-7). b. Replace starters (para 4-7). c. Higher level maintenance required.
13	Front fluorescent light or neon light fails to light.	a. Defective lamps. b. Defective starters. c. Defective FLUORESCENTS switch or POWER DISTRIBUTION PANEL.	a. Replace lamp. b. Replace starter. c. Higher level maintenance required.
14	a. Ammeter indicates 0 ampere. b. Ammeter indication is abnormally high.	a. Defective lamp. b. Defective fluorescent lamp • starter. c. Defective shelter power circuitry.	a. Higher level maintenance required. b. Operate all circuit breakers except MAIN and LIGHTS circuit breakers to OFF and check ammeter. If indication is still abnormally high, operate MAIN and LIGHTS circuit breakers to OFF and request higher level maintenance.
15	Fluorescent lamps are not extinguished when door is opened.	a. Defective POWER DISTRIBUTION PANEL. b. One or more circuit breakers Other than MAIN and LIGHTS circuit breakers at ON.	Higher level maintenance required.
16	Fluorescent lamps fail to light.	Defective door microswitch or NORMAL-BLACKOUT switch	Higher level maintenance required.
17	a. BLOWER 1 glowlamp fails to light.	Defective door microswitch or NORMAL-BLACKOUT switch.	a. Corrective measure: (1) Replace glowlamp (para 4-7). (2) Higher level maintenance required.
	b. Blower No. 1 fails to operate.	a. Following may be defective: (1) Glowlamp No. 7. (2) POWER DISTRIBUTION PANEL b. Defective blower.	b. Higher level maintenance required.
18	a. BLOWER 2 glowlamp fails to operate.	a. Following may be defective: (1) Glowlamp No. 8. (2) POWER DISTRIBUTION PANEL b. Defective blower.	a. Corrective measure: (1) Replace glowlamp (para 4-7). (2) Higher level maintenance required.
	b. Blower No. 2 fails to operate.		b. Higher level maintenance required.

b. Operator's Troubleshooting Chart (continued).

Item No.	Trouble symptom	Probable trouble	Checks and corrective measures
19	HEATER glowlamp fails to light.	a. Defective glowlamp No. 2.	a. Replace glowlamp (para 4-7).
		b. Defective POWER DISTRIBUTION PANEL.	b. Higher level maintenance required.
20	a. No air is expelled from	a. Defective heater.	a. Replace heater. Higher level maintenance required for defective heater.
	b. Air is not heated.	b. Defective heater.	b. Replace heater. Higher level maintenance required for defective heater.
	c. Heater continues to heat after desired temperature has been reached.	c. Defective heater.	c. Replace heater. Higher level maintenance required for defective heater.
21	CONVENIENCE receptacle or SPARE 10, 11, or 12 glowlamp fails to light.	a. Defective glowlamp.	a. Replace glowlamp (para 4-7).
		b. Defective power distribution panel.	b. Higher level maintenance required.
22	AN/TRC-24 SYSTEM 1, 2, or 3 glowlamp fails to light.	a. Defective glowlamp No. 3, 4, or 5.	a. Replace glowlamp (para 4-7).
		b. Defective POWER DISTRIBUTION PANEL.	b. Higher level maintenance required.
23	Radio equipment fails to operate properly.	Defective radio equipment.	Refer to TM 11-5820-287-10 and make authorized repairs only.
24	INTERCOM glowlamp fails to light.	Defective glowlamp No. 9	Replace glowlamp (para 4-7).
25	LS-147(*)/FI fails to operate properly.	LS-147(*)/FI defective.	Refer to TM 11-5830-221-12 and make authorized repairs only.
26	TA-312/PT fails to operate properly.	a. Weak or defective Batteries BA-30.	a. Replace batteries (TM 11-2155).
		b. Defective TA-312/PT.	b. Higher level maintenance required.

4-7. Operator's Removal and Replacement Procedures

a. Shelter Facility Replacement Parts. The only shelter facility parts authorized for replacement by the operator are the fluorescent lamps, lamp starters, power distribution panel glow-lamps, neon lamp, and the hand lantern and extension light incandescent lamps. The procedures for removal and replacement of all the above items (except the power distribution panel glowlamps) are evident upon inspection. To replace a glowlamp in a POWER DISTRI-

BUTION PANEL of the S-177E/MRC-54 (V), press the glowlamp inward and turn it counterclockwise one-fourth turn. To replace a glowlamp in all other models of the shelter facility, unscrew the glowlamp from the lamp-holder.

b. Communication Equipment Replacement Parts. Refer to TM 11-5820-287-10, TM 11-5830-221-12, and TM 11-2155 for instructions for the removal and replacement of the operator's replacement parts of the radio equipment, intercom, and telephone set, respectively.

Section II. ORGANIZATIONAL MAINTENANCE**4-8. Scope of Organizational Maintenance**

Organizational maintenance consists of specific authorized preventive and corrective maintenance procedures (*a* and *b* below).

a. Organizational Preventive Maintenance. This maintenance is performed monthly and quarterly; the specific procedures are described in paragraphs 4-9 and 4-10. If the AN/

MRC-54(V) is truck-mounted, schedule the preventive maintenance checks concurrently with the periodic service schedule for the truck.

b. Corrective Maintenance. Authorized organizational corrective maintenance procedures include organizational troubleshooting (para 4-11 and 4-12) and organizational repair procedures (para 4-13 through 4-18). If performance of the authorized corrective maintenance procedures does not correct a defective AN/MRC-54(V), higher level maintenance is required.

c. Maintenance Records and Reports. Records and reports of preventive and corrective maintenance must be made in accordance with procedures given in TM 38-750.

d. Tools, Test Equipment, and Repair Parts. The tools and test equipment not issued as part of the AN/MRC-54(V) but required for its organizational maintenance are listed in appendix II. Additional tools, furnished as part of the AN/MRC-54(V) and required for organizational maintenance, are listed in appendix III. Refer to appendix III for a list of replacement parts authorized for organizational maintenance.

e. Touchup Painting. Remove rust and corrosion from metal surfaces by lightly sanding the surfaces with fine sandpaper. Brush two thin coats of the proper paint on the bare metal. Refer to the applicable cleaning and

refinishing instructions given in SB 11-573 and TB SIG 364.

Caution: Paint per MIL-E-46061 (MO) has been used on the exterior of some shelters to maintain a lower inside temperature when the shelter is located in the direct rays of the sun. Before doing any touchup painting on the shelter exterior, check for a caution notice inside the shelter door. Do not use any other type of paint for touchup if the shelter has been painted with paint per MIL-E-46061 (MO).

4-9. Organizational Monthly Preventive Maintenance Checks and Services

a. General. Perform the maintenance functions indicated in the monthly preventive maintenance checks and services chart (*b* below) once each month. A month is defined as approximately 30 calendar days of 8-hour-per-day operation. If the equipment is operated 24 hours per day, the monthly preventive maintenance checks and services should be performed at 10-day intervals. Adjustment must be made for any unusual operating conditions. Equipment maintained in a standby (ready for immediate operation) condition must have monthly preventive maintenance checks and services performed on it. Equipment in limited storage (requires service before operation) does not require monthly preventive maintenance.

b. Organizational Monthly Preventive Maintenance Checks and Services Chart.

Sequence No.	Item to be inspected	Procedure	References
		<i>Exterior</i>	
1	Shelter skin and hardware.	Check painted surfaces; use touchup paint where paint is blistered, pitted, or flaking, and on bare metal spots.	Para 4-8e and TB SIG 354.
2	Grounding system -----	Clean ground lug connections.	Para 2-5.
3	Sling assembly -----	Clean and paint bare metal parts.	Para 4-8e.
4	Movable parts and door.	a. Clean and paint bare metal parts. b. Tighten loose screws and bolts. c. Lubricate. d. Clean air filter. e. Apply gasket cement on loose gaskets.	a. Para 4-8e. b. None. c. TB SIG 354. d. E, fig. 6-1. e. None.
5	SIGNAL AND POWER ENTRANCE box.	a. Remove corrosion from binding posts. b. Repair insulation cuts and abrasions with electrical insulation tape. c. Inspect layout of cables and relocate if necessary to prevent damage by or hazard to vehicles and pedestrians.	a. Fig. 6-1. b. None. c. None.

Sequence No.	Item to be inspected	Procedure	References
<i>Interior</i>			
6	Signal and power cables.	a. Check tightness of screws and clamps that secure wires to terminals. b. Repair insulation cuts and abrasions with electrical insulation tape. c. Cover disconnected bare wire with electrical insulation tape. d. Polish metal plugs on telephone cords.	a. None. b. None. c. None.
7	Signal, power, and lighting system ducts.	Tighten loose screws, bolts, and clips. Repair or replace defective switches, switchplates, outlets, receptacles, and jacks.	None.
8	Lighting system -----	a. Tighten screws and nuts that secure lighting fixtures, lights, and parts on POWER DISTRIBUTION PANEL. b. Replace defective or missing parts in lighting system and POWER DISTRIBUTION PANEL.	a. None. b. Para 4-16.
9	Walls, ceiling, and floor.	a. Clean and paint bare metal spots. b. Check for skin punctures and cracked seams.	a. Para 4-8e. b. TB SIG 354.
10	Cabinet and storage drawers.	Repair or replace broken doors, latches, and handles.	None.
11	Equipment mountings.	a. Tighten all loose bolts, nuts, screws, and clamps that secure equipment, racks, frames, shelves, braces, clamps, and mounting hardware. Replace missing bolts, nuts, etc. b. Make sure that equipment mounting racks, frames, braces, shelves, and clamps are not bent, broken, or out of shape to endanger personnel or equipment.	a. None. b. None.
12	POWER DISTRIBUTION PANEL.	Repair or replace defective parts.	Para 4-16.
13	Batteries and hand lantern.	Remove dirt and corrosion from battery compartment, and replace batteries that show signs of swelling, leakage, or corrosion.	E, fig. 6-1.
14	Exhaust blowers -----	a. Lubricate motor with Lubricating Oil, General Purpose (PL-SPECIAL MIL-L-649) or Lubricating Oil, Internal Combustion Engine (OE-10 MIL-L-2104). b. Clean motor and fan housing. c. Repair or replace defective parts.	a. None. b. Para 4-5. c. Para 4-15.
15	Blackout curtain -----	a. Tighten screws that secure track fixture to ceiling. b. Repair or replace if torn, ripped, or frayed.	a. None. b. None.
16	Electric heater -----	a. Clean inside and outside of case. b. Repair or replace defective parts.	a. Para 4-5. b. Para 4-14.
17	Clock -----	Replace if correct time cannot be maintained.	None.
18	Equipment performance.	a. Check operation of all equipment. b. Replace and/or repair any authorized defective or inoperable part.	a. Para 4-4 and note below. b. None.

Note. In addition to the preventive maintenance checks and services for the items listed in the chart above, perform the monthly preventive maintenance required for the components of the AN/MRC-54(V) which are covered in separate technical manuals (appx I.).

4-10. Organizational Quarterly Preventive Maintenance Checks and Services

a. *General.* Quarterly maintenance checks and services on the AN/MRC-54(V) are re-

quired. The monthly maintenance checks and services (para 4-9) constitute a part of the quarterly preventive maintenance and must be performed concurrently. All deficiencies or

shortcomings will be recorded in accordance with the requirements of TM 38-750. Perform all checks and services listed in the quarterly

preventive maintenance checks and services chart (b below) in the sequence listed.

b. Organizational Quarterly Preventive Maintenance Checks and Services Chart.

Sequence No.	Item to be inspected	Procedure	References
<i>General</i>			
1	End item equipment -----	a. Check equipment for completeness, and requisition replacement for missing components, running spares, and defective parts.	a. Appx III.
		b. Make sure that all components, except those in use, are mounted or stowed in assigned places.	b. Fig. 6-1.
		c. Requisition all technical manuals not on hand or in usable condition, including current changes.	c. DA Pam 310-4 and appx I.
2	Modification work orders (MWO's).	Make sure that all applicable MWO's have been applied and MWO number is stamped as required. Modify or request modification if applicable.	DA Pam 310-4
<i>Exterior</i>			
3	Shelter skin and hardware.	Check for skin punctures, tears, or open seams that would permit moisture to enter shelter wall. Repair or replace defective hardware.	TB SIG 354
4	Grounding system -----	Replace ground rod if ground lead lug cannot be securely tightened. Replace ground lead if it is cut, corroded, or broken.	Para 2-5.
5	Shelter door -----	Make sure that rubber gaskets are not missing or loose and that they provide watertight seal. See that hinges and door handles are not broken.	None.
6	SIGNAL AND POWER ENTRANCE box	a. Use a brush and carefully remove sand, moisture, and dirt from contacts of cable connectors.	a. None.
		b. Tighten locknuts, screws, and bolts that secure cable and binding posts, and replace defective parts.	b. None.
7	Power and signal cable assemblies.	Replace assemblies that contain defective wiring, insulation, or connectors.	None.
<i>Interior</i>			
8	Signal and power cables	Dress all cabling neatly; use cable and cord clamps provided in shelter, or use electrical insulation tape and twine.	None.
9	Walls, ceiling, and floor.	Paint blistered, pitted, or flaked area and bare metal spots.	Para 4-5.
10	Fire extinguisher -----	a. Refill if weight of contents is less than required or if seal is broken.	a. None.
		b. Replace if valve assembly is damaged.	b. None.
11	First aid kit -----	Replace if case is broken or damaged. Replace parts that have been used. (See parts list inside case cover.)	None.
12	Chair and chair cushion	a. Repair or replace chair if parts are bent or broken, or if it is unsafe for use.	a. None.
		b. Repair or replace cushion that is torn, cut, or has split at the seams or has exposed padding.	b. None.
13	Ax and sledge hammer -----	Replace if handle is broken, split, or does not fit head tightly.	None.
14	Ladder -----	a. Paint blistered, pitted, or flaking areas and bare spots.	a. Para 4-5.
		b. Repair or replace if steps, frame, or parts are broken, or if it is unsafe for use.	b. None.

4-11. Organizational Troubleshooting, General

The systematic troubleshooting procedure begins with a visual inspection and is completed by localizing and isolating techniques. Localization (*a* below) means tracing the trouble to a defective circuit or component. If the trouble has been localized to a major component, follow the troubleshooting instructions in the appropriate technical manual (appx I). If the trouble has been localized to a defective circuit or component of the S-177(*)/MRC-54(V), use the isolation techniques (*b* below) to locate the defective part.

a. Localization. In general, each circuit or component in the AN/MRC-54(V) is separated from all others electrically and functionally. A trouble in any of the circuits or components can usually be localized by use of the methods given below.

(1) *Visual inspection.* The purpose of visual inspection is to locate troubles without the use of tests or measurements. Look for burned, charred, or otherwise damaged parts or wiring in an attempt to localize the trouble to a particular circuit or component.

(2) *Operational tests.* Operational tests frequently indicate an abnormally

operating circuit. In many instances, the tests will be helpful in determining the exact nature of the trouble. Use the operational tests in the daily preventive maintenance checks and services chart (para 4-4) and perform each step in sequence, starting with item 13. When an abnormal indication has been observed, refer to the same item number in the organizational troubleshooting chart (para 4-12) to localize the defective circuit or component.

b. Isolation of Defective Part. When a trouble has been localized to a defective circuit or component, use the following techniques to isolate the defective part.

(1) *Continuity and voltage checks.* Make voltage and continuity checks at outlets, receptacles, connector pins, and other points related to the circuit or component. Refer to the lower schematic-wiring diagram (fig. 6-4) to trace the circuits.

(2) *Signal tracing.* Trace the signals and make voltage checks if the trouble has been localized to a defective signal circuit. Use the AN/MRC-54(V) signal schematic-wiring diagram (fig. 6-3) to trace the circuits.

4-12. Organizational Troubleshooting Chart

Item No.	Trouble symptom	Probable trouble	Checks and corrective measures
13	Voltmeter indicator is 0 volt.	<p><i>a.</i> Defective MAIN circuit breaker CB13 (fig. 4-5).</p> <p><i>b.</i> Defective meter M2.</p> <p><i>c.</i> Defective power cable.</p> <p><i>d.</i> Defective POWER receptacle (fig. 1-6).</p>	<p><i>a.</i> Check circuit breaker; replace if necessary (para 4-16).</p> <p><i>b.</i> Check meter; replace if necessary (para 4-16).</p> <p><i>c.</i> Check power cable; repair if necessary (fig. 4-6).</p> <p><i>d.</i> Check receptacle; replace if necessary (para 4-7).</p>
14	LIGHTS glowlamp fails to light (fig. 4-5).	<p><i>a.</i> Defective lamp socket XDS1</p> <p><i>b.</i> Defective LIGHTS circuit breaker CB1.</p>	<p><i>a.</i> Check socket; replace if necessary (para 4-16).</p> <p><i>b.</i> Check circuit breaker; replace if necessary (para 4-16).</p>
15	Fluorescent lamps fail to light.	<p><i>a.</i> Defective FLUORESCENTS switch S4 and/or NORMAL-BLACKOUT switch S3.</p> <p><i>b.</i> Defective light fixture.</p>	<p><i>a.</i> Check switches S3 and S4; replace if necessary (fig. 6-4).</p> <p><i>b.</i> Check light fixtures; repair or replace if necessary (para 4-18).</p>

Item No.	Trouble symptom	Probable trouble	Checks and corrective measures
16	a. Front fluorescent light fails to light. b. Neonlight fails to light.	a. Defective FLUORESCENT switch S2 or light fixture. b. Defective NEON switch S5.	a. Check switch S2 and light fixture; replace if necessary. b. Replace switch S5.
17	a. Ammeter indication is 0 ampere. b. Ammeter indication is abnormally high.	a. Defective meter M1 or transformer T1. b. Defective wiring.	a. Check meter M1 and transformer T1; replace if necessary (para 4-16). b. Check wiring; repair if necessary (para 4-16 and fig. 6-4).
18	Fluorescent lights are not extinguished when door is opened.	Defective door microswitch S1 ----	Check door microswitch; replace if necessary (fig. 6-4).
19	Fluorescent lights fail to light.	Defective switch S3 -----	Check switch; replace if necessary.
20	a. BLOWER 1 glowlamp fails to light. b. BLOWER 1 glowlamp lights but blower No. 1 fails to operate.	a. Following may be defective: (1) BLOWER 1 circuit breaker. (2) Socket XDS7. b. Defective blower No. 1.	a. Make following checks: (1) Check circuit breaker; replace if necessary (para 4-16). (2) Check socket; replace if necessary (fig. 6-4). b. Check blower; repair if necessary (para 4-15).
21	a. BLOWER 2 glowlamp fails to light. b. BLOWER 2 glowlamp lights but blower No. 2 fails to operate.	a. Following may be defective: (1) BLOWER 2 circuit breaker. (2) Socket XDS8. b. Defective blower No. 2.	a. Check socket; replace if defective (para 4-16). (1) Check circuit breaker, replace if necessary (para 4-16). (2) Check socket; replace if necessary (fig. 6-4). b. Check blower; repair if necessary (para 4-15).
22	HEATER glowlamp fails to light.	a. Defective HEATER circuit breaker. b. Defective socket XDS2.	a. Check circuit breaker; replace if necessary (para 4-16). b. Check socket; replace if necessary (para 4-16).
23	a. No air is expelled from heater. b. Air is not heated ----- c. Heater continues to heat after desired temperature is reached.	a. Following may be defective: (1) HEATER receptacle. (2) HEATER controls. (3) Motor. b. Following may be defective: (1) Heater controls. (2) Heating element. c. Defective temperature control.	a. Check the following: (1) Check receptacle; replace if necessary. (2) Check controls switch; replace if necessary. (3) Check motor; replace if necessary. b. Check the following: (1) Check controls; replace if necessary. (2) Check heating element; replace if necessary. c. Check temperature control; replace if necessary.
24	Associated glowlamp fails to light.	a. Defective circuit breaker.	a. Check circuit breaker; replace if necessary (para 4-16).

Item No.	Trouble symptom	Probable trouble	Checks and corrective measures
25	Glowlamp fails to light ----	b. Defective lamp socket. a. Defective circuit breaker.	b. Check socket; replace if necessary (para 4-16). a. Check circuit breaker; replace if necessary (para 4-16).
26	Radio equipment fails to operate.	b. Defective socket XDS4.	b. Check socket; replace if necessary (para 4-16).
27	INTERCOM circuit breaker glowlamp fails to light (fig. 4-5).	a. Defective ceiling receptacle. b. Defective radio equipment.	a. Check receptacle; replace if necessary. b. Refer to TM 11-5820-287-20.
28	LS-147(*)/FI fails to operate properly.	a. Defective INTERCOM circuit breaker. b. Defective socket XSD9.	a. Check circuit breaker; replace if necessary (para 4-16). b. Check socket; replace if necessary (para 4-16).
29	TA-312/PT fails to operate properly.	a. Defective INTERCOM receptacle. b. Defective LS-147(*)/FI.	a. Check receptacle; replace if necessary (fig. 6-4). b. Refer to TM 11-5830-221-12.
		Defective TA-312/PT.	Refer to TM 11-2155.

4-13. Organizational Repair Procedures, General

Note: Refer to appendix III for a list of replacement parts authorized for organizational maintenance.

a. *Communication Equipment.* Refer to TM 11-5820-287-20, TM 11-5830-221-12, and TM 11-2155 for instructions for organizational repair of the radio equipment, intercom, and telephone set, respectively.

b. *Shelter Facility.*

- (1) When a defective part has been isolated within a component or circuit of the S-177(*)/MRC-54(V), perform the appropriate repair procedure (para 4-14 through 4-18).
- (2) Refer to TB SIG 354 for instructions on the repair of the basic shelter.

4-14. Electric Heater Repairs

a. Remove the heater from its mounting base and remove the cover plates to provide access to the interior of the heater.

b. Refer to figures 4-1 through 4-4 for circuit details and identification of the heater parts. Replace defective parts as authorized; the parts replacement procedures are readily apparent upon inspection.

4-15. Exhaust Blower Repairs

Organizational repair of the blowers is limited to replacement of the ac power cord and the motor.

a. Operate the appropriate BLOWER circuit breaker to OFF.

b. Replace a defective ac power cord or motor as necessary; the replacement procedures are readily apparent upon inspection.

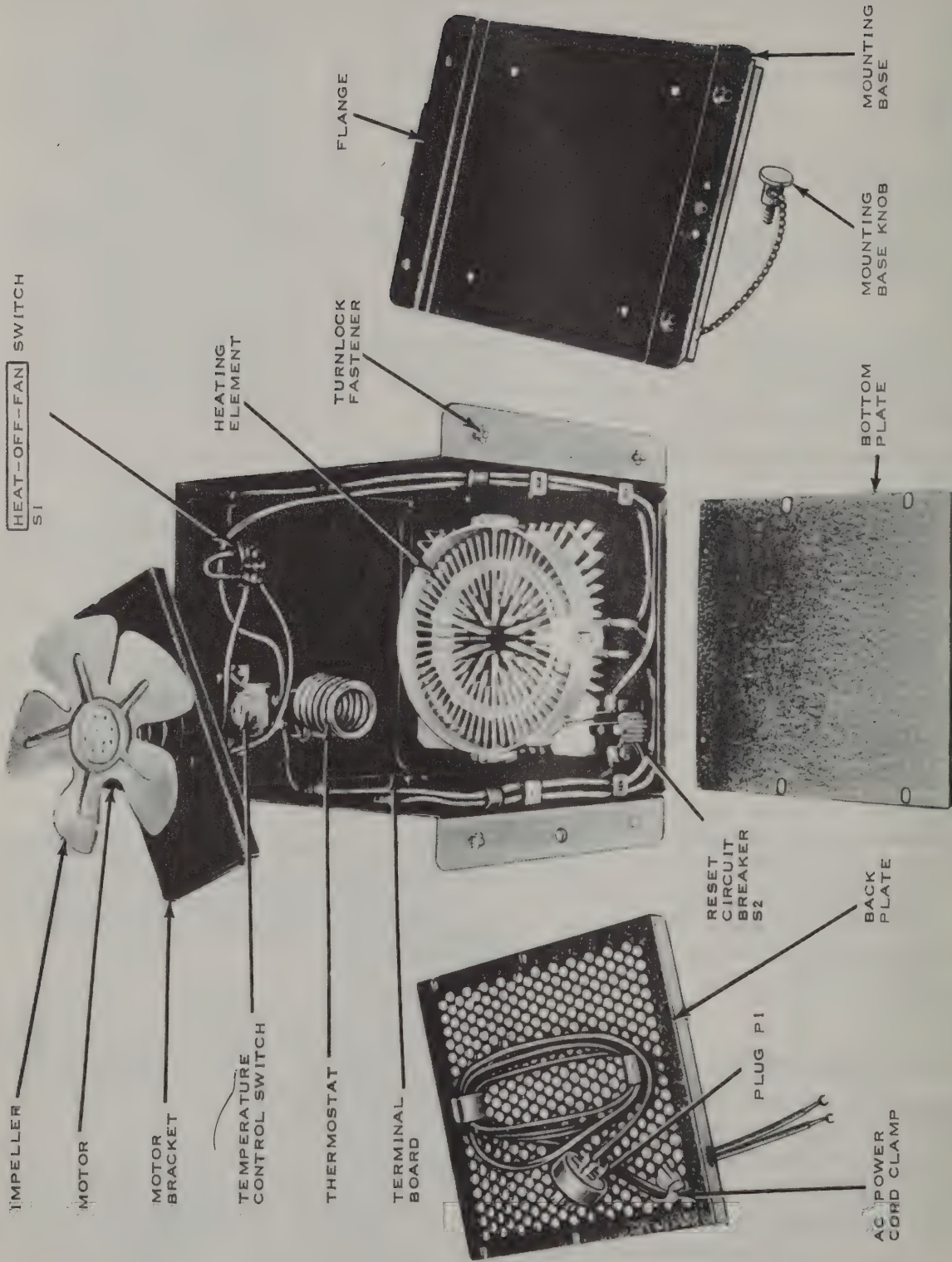
4-16. POWER DISTRIBUTION PANEL Repairs

Warning: Before performing any POWER DISTRIBUTION PANEL repairs, disconnect the ac power cable from the POWER receptacle in the SIGNAL AND POWER ENTRANCE box.

a. *Preliminary Procedures.* Remove the screws that secure the cover to the POWER DISTRIBUTION PANEL, and remove the cover before performing the procedures given in b through d below.

b. *Removal and Replacement of Circuit Breaker* (fig. 4-5).

- (1) Grasp the defective circuit breaker and pull it straight out from the panel.
- (2) Disconnect the wires connected to the circuit breaker.



TM5805-285-15-31

Figure 4-1. Heater (Electromode No. AAT-15A), interior view.

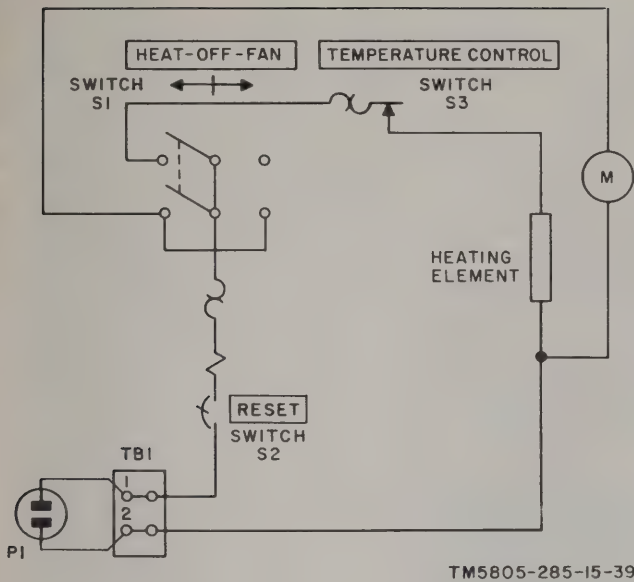


Figure 4-2. Heater (Electromode No. AAT-15A), schematic diagram.

- (3) Connect the wires to appropriate terminals of the replacement circuit breaker.
- (4) Position the circuit breaker in the POWER DISTRIBUTION PANEL and firmly press it into place.

c. Removal and Replacement of Current Transformer (fig. 4-5).

- (1) If the meters are mounted on a separate meter panel, remove the screws that secure the meter panel to the POWER DISTRIBUTION PANEL.
- (2) Disconnect the black and white leads from the transformer terminals. (Note which lead was connected to each terminal.)
- (3) Remove the nuts and washers that secure the current transformer inside the panel, and remove the current transformer.

Note: Count the number of turns of heavy black wire through the center hole of the current transformer before proceeding to the next step.

- (4) Disconnect the black wire wound around the current transformer from the MAIN circuit breaker and carefully unwind the wire.

Caution: Be sure that the number of turns of black wire around the replacement current transformer is the same as that on the original transformer.

- (5) Wind the black wire around the replacement current transformer.
- (6) Reconnect the black wire to the MAIN circuit breaker.
- (7) Position the current transformer inside the panel and secure it with the original nuts and washers.
- (8) Connect the black and white ammeter leads to the appropriate terminals of the transformer.
- (9) Replace the meter panel and tighten the screws.

d. Removal and Replacement of Meters.

- (1) Disconnect the leads from the meter terminals. (Note the color of the leads connected to each meter terminal.)
- (2) Remove the bolts that secure the meter to the panel, and lift out the meter.
- (3) Position the replacement meter in the panel and secure it with the bolts.
- (4) Connect the leads to the appropriate terminals of the new meter.

4-17. Removal and Replacement of Power Cable and Entrance Box Connectors

a. Power and Spiral-Four Connectors (fig. 1-6).

- (1) Disconnect the ac power cable from the shelter.
- (2) Remove the rear cover of the SIGNAL AND POWER ENTRANCE box, disconnect the wires from the terminals of the connector to be replaced, and remove the connector.
- (3) Install the replacement connector, connect the appropriate wires to the appropriate terminals of the connector (fig. 4-6, 6-3, or 6-4), and replace the rear cover of the SIGNAL AND POWER ENTRANCE box.

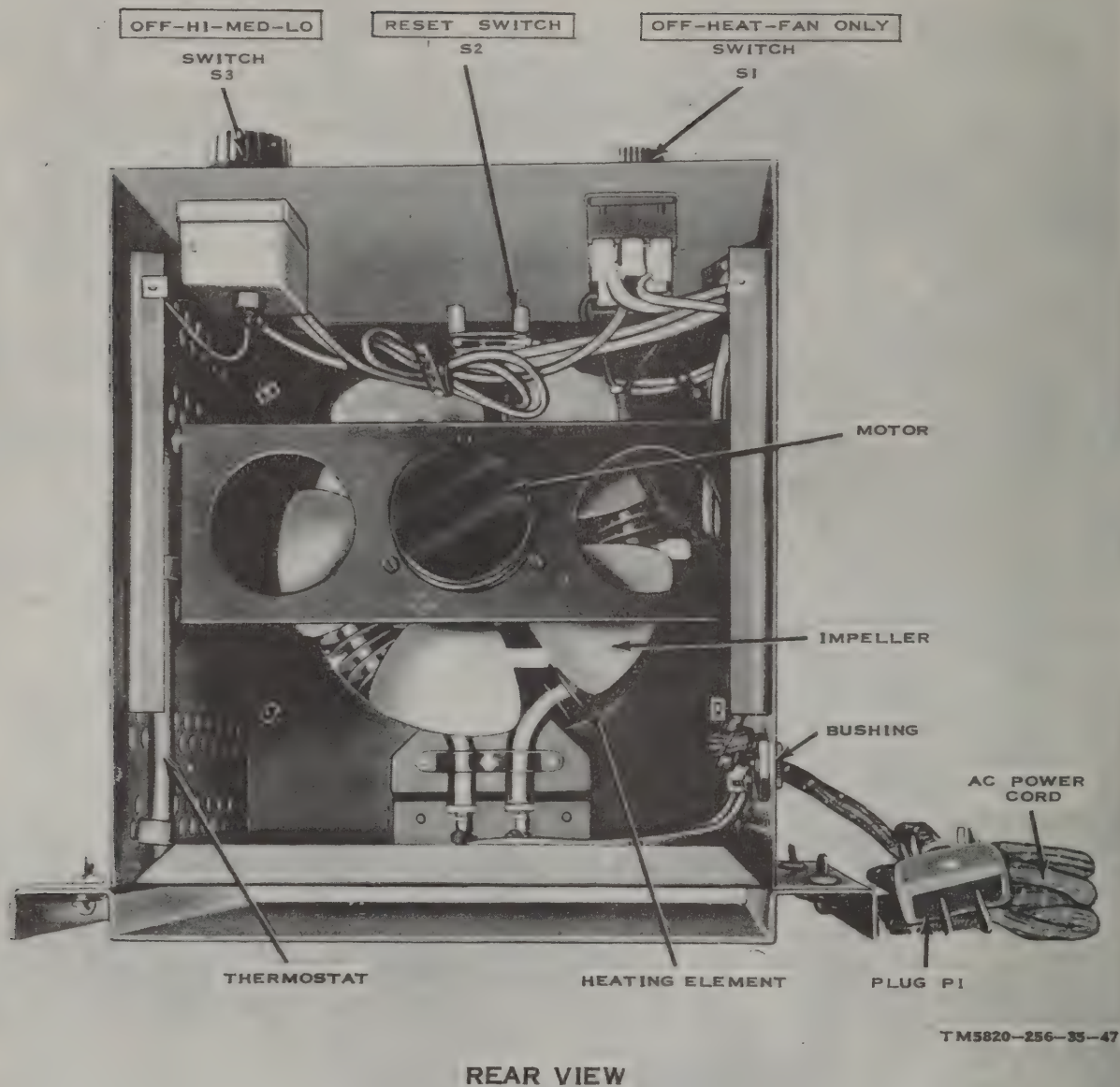


Figure 4-3. Heater (HD-375/U), interior view.

b. Antenna Connectors (fig. 1-6 and 6-1).

- (1) Disconnect the cable from the connector to be replaced, and remove the connector.
- (2) Install the replacement connector and connect the cable to the connector.

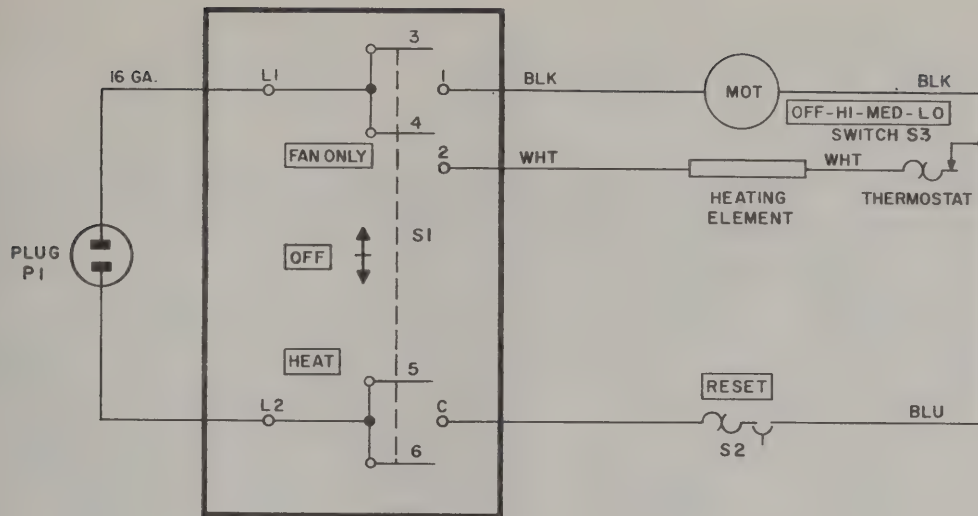
c. Power Cable Connectors. Refer to figure 4-6 for details of removal and replacement of the power cable connectors.

4-18. Repair of Fluorescent Light Fixtures

Note: The fluorescent light fixtures are fabricated as part of the ceiling power duct (fig. 4-7). The filter capacitors are sealed units and cannot be repaired. They are replaced as complete units.

a. Remove the light shield and the fluorescent lamp.

b. Carefully pry off the cover from the power duct.



NOTES:

1. INDICATES EQUIPMENT MARKING.
2. ALL WIRING IS 14 GAGE UNLESS OTHERWISE INDICATED.
3. SWITCH S1 CONTACTS 3 THROUGH 6 ARE ARBITRARILY NUMBERED.

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Figure 4-4. Heater (HD-375/U), schematic diagram.

c. Label and disconnect the wires from the defective component.

d. Remove the defective component from the power duct.

e. Secure the replacement component in the power duct.

f. Connect the wires to the replacement component (fig. 4-8).

g. Replace the cover on the power duct.

h. Replace the fluorescent lamp and the light shield.

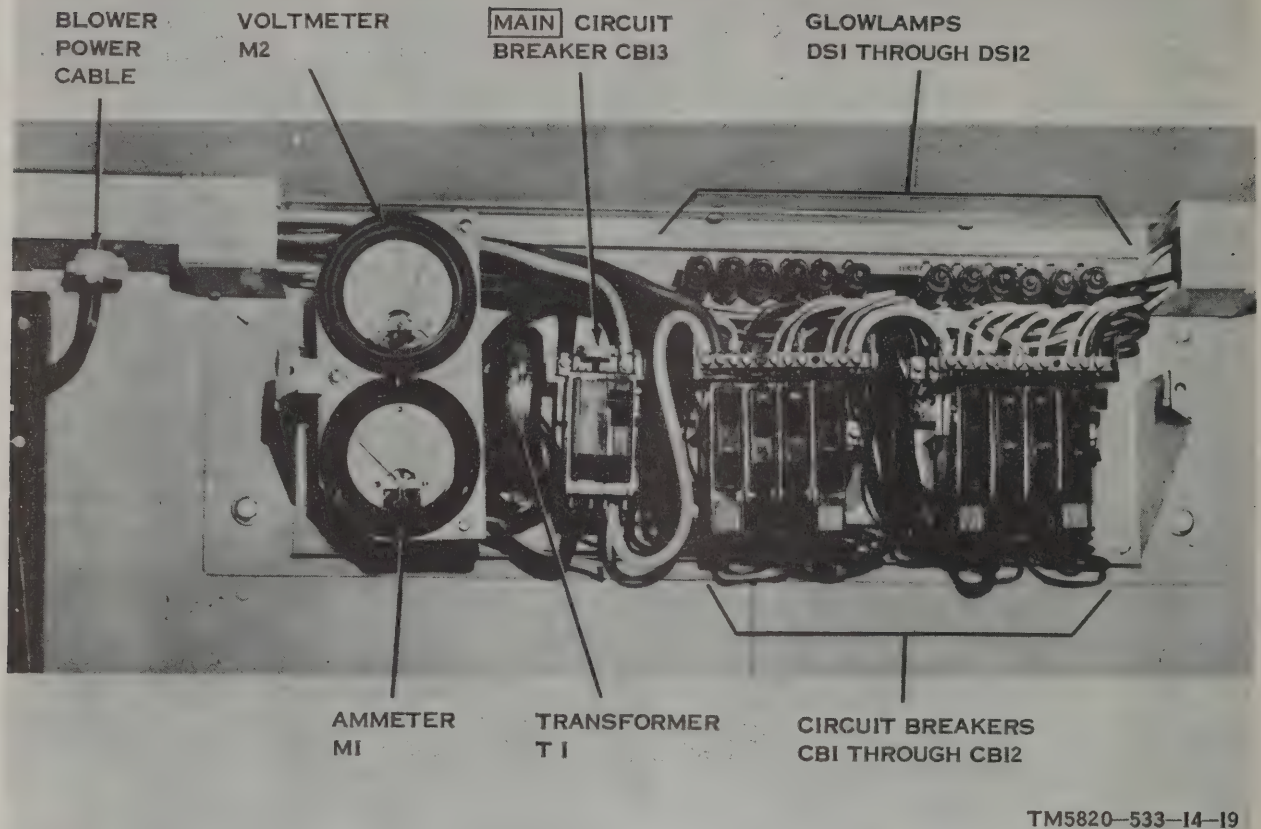
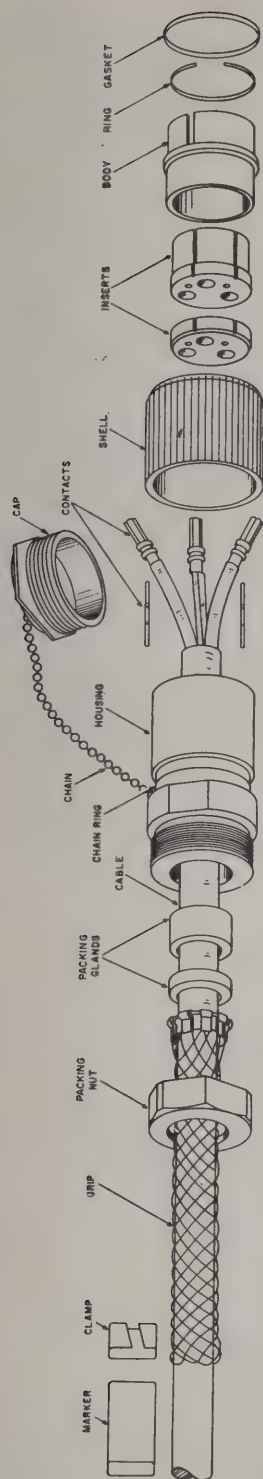
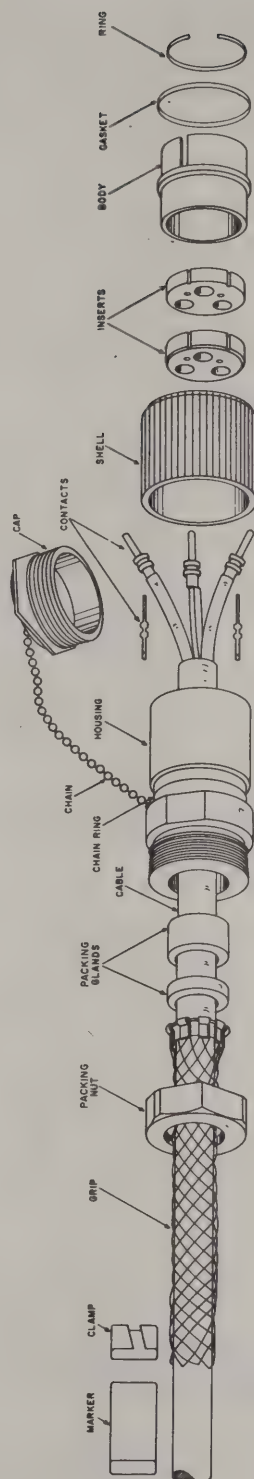


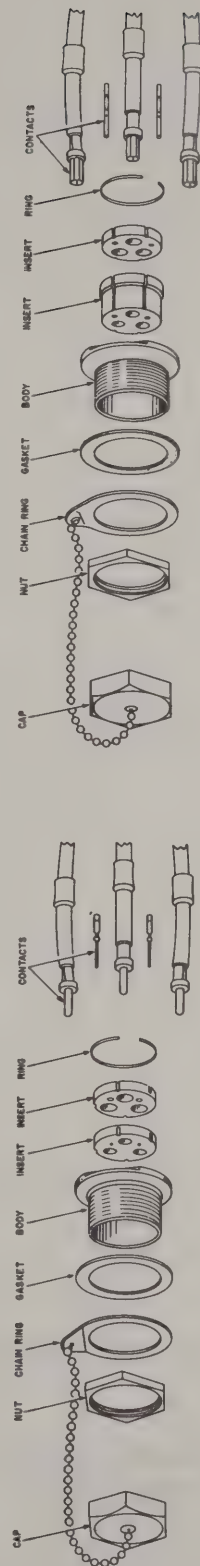
Figure 4-5. POWER DISTRIBUTION PANEL, interior view.



A. POWER CABLE CONNECTOR (FEMALE)



B. POWER CABLE CONNECTOR (MALE)



C. POWER RECEPTACLE (MALE)

D. POWER RECEPTACLE (FEMALE)

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Figure 4-6. Power Cable Assembly CX-4694A/U, repair details.

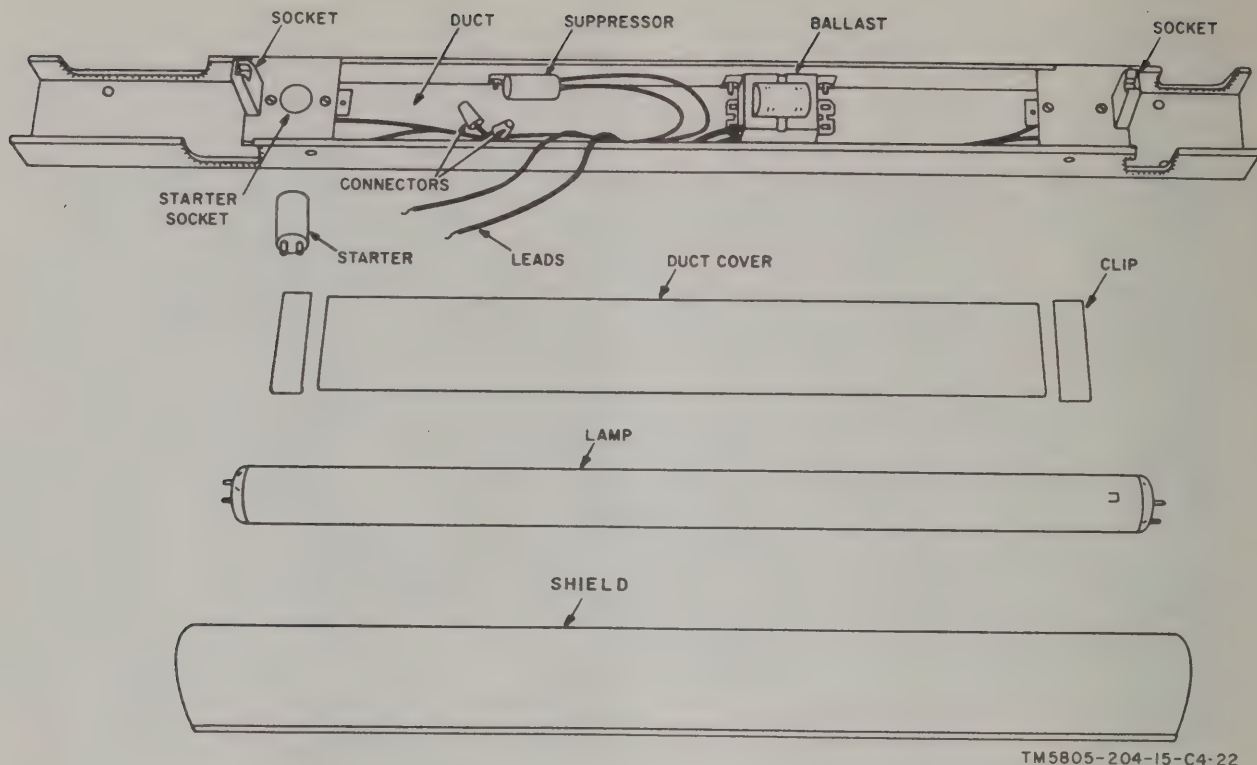


Figure 4-7. Fluorescent light fixture, interior view.

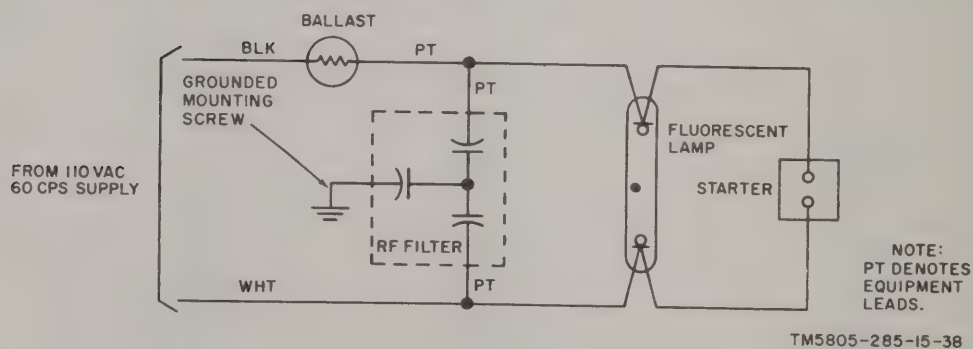


Figure 4-8. Fluorescent light fixture, schematic diagram.

Section III. DIRECT AND GENERAL SUPPORT AND DEPOT MAINTENANCE

4-19. Scope of Direct and General Support and Depot Maintenance

a. *General.* Direct and general support and depot maintenance includes the corrective maintenance procedures listed in the maintenance allocation chart (appx II).

b. *Tools, Test Equipment and Repair Parts Required.* The tools and test equipment required for direct and general support and depot maintenance of the AN/MRC-54(V) are listed in section III of the maintenance allocation chart (appx II). Refer to appendix III for

a list of replacement parts authorized for direct and general support and depot maintenance.

4-20. Direct Support Repair Procedures

a. Communication Equipment Repairs. Refer to the applicable technical manual (appx I) for instructions in performing direct support maintenance of the radio equipment, intercom, and telephone set.

b. Shelter, Electrical Equipment S-177()/MRC-54(V) Repairs.* Direct support repair of the S-177(*)/MRC-54(V) includes the following:

- (1) Emergency repair of holes and minor structural damage to the shelter facility.
- (2) Removal and replacement of the door handle and latchbolt assemblies, entrance door filter, and cover assemblies and gaskets for the blower vents, the antenna entrance box, and the SIGNAL AND POWER ENTRANCE box.

Note: Refer to TB SIG 354 for additional information on direct support maintenance of the shelter facility.

4-21. General Support Repair Procedures

a. Communication Equipment Repair. Refer to the applicable technical manual (appx I) for instructions in performing general support maintenance and test of the radio equipment, intercom, and telephone set.

b. Shelter, Electrical Equipment S-177()/MRC-54(V) Repair.* General support repair of the S-177(*)/MRC-54(V) includes replacement of the doors and skids, and permanent repair of holes and major structural damage to the shelter. Refer to TB SIG 354 for information on general support maintenance procedures of the shelter facility.

4-22. Depot Repair Procedures

a. Communication Equipment Repair. Refer to the applicable technical manual (appx I) for instructions in performing depot maintenance and test of the radio equipment, intercom, and telephone set.

b. Shelter, Electrical Equipment S-177()/MRC-54(V).* Refer to TB SIG 354 for detailed instructions for performing depot repair of the shelter facility. The repaired shelter facility must meet the depot inspection standards described in TB SIG 354.

CHAPTER 5

FUNCTIONING OF AN/MRC 54(V)

5-1. General

a. The AN/MRC-54(V) normally functions as a radio repeater between radio terminals. It may also function as a radio terminal when connected to telephone terminal equipment.

b. Refer to paragraph 5-2 for signal circuitry details of the AN/MRC-54(V); refer to paragraph 5-3 for details of the ac power circuitry. Refer to the appropriate equipment technical manuals (appx I) for information concerning functioning of the radio equipment, the intercom, and the telephone set.

5-2. Signal Circuitry

a. *Radio Repeater Function.* A typical arrangement of the AN/MRC-54(V) functioning as a radio repeater is shown in A, figure 1-2. When the AN/MRC-54(V) functions as a radio repeater, two of the radio sets (systems) in the shelter facility are coupled by a spiral-four cable assembly at the SIGNAL AND POWER ENTRANCE box (fig. 1-6 and 6-3). Signals received from the receiving antenna are demodulated to the 12- to 60-kc band in the radio, are fed through a duplexer in transmitter No. 1 to the receiver and are applied through the spiral-four cable to the transmitter of the other radio set for propagation to the terminal or next repeater. The same sequence is followed for transmission in the reverse direction. The system 3 equipment normally is maintained on standby.

b. *Radio Terminal Function.* A typical arrangement of the AN/MRC-54(V) functioning as a radio terminal is shown in B, figure 1-2. Any (or all three) of the three radio systems in the shelter facility may be connected by spiral-four cable to a telephone terminal

where the signals are converted into individual voice-frequency telephone circuits.

c. Intra-Area Circuits.

(1) *Telephone circuit.* The intra-area telephone circuit is connected to the AN/MRC-54(V) at the LB PHONE binding posts in the SIGNAL AND POWER ENTRANCE box (fig. 1-6). The telephone line is terminated in the PHONE jack in the signal duct and connected to the TA-312/PT through a telephone cord (fig. 6-3).

(2) *Intercom circuit.* The intra-area intercom circuit is connected to the AN/MRC-54(V) at the INTERCOM binding posts in the SIGNAL AND POWER ENTRANCE box. The intercom line is terminated in the INTERCOM jack in the signal duct, and connected to the LS-147 (*)/FI through a telephone cord.

5-3. Ac Power Circuitry

(fig. 6-4)

a. *Power Distribution.* Power for the AN/MRC-54(V) is applied at a POWER receptacle in the SIGNAL AND POWER ENTRANCE box and is distributed through MAIN circuit breaker CB13 and through 12 individual circuit breakers to the various operating components in the shelter. The second POWER receptacle provides for power connection to another area assemblage. Neon lamp DS14 lights when NEON switch S5 is at ON and power is applied to the shelter facility; individual glowlamps DS1 through DS12 light when the associated circuit breakers are at ON.

b. *Meters.* Voltmeter M1, connected across the ac input, monitors the input voltage to the shelter facility. Ammeter M2, connected to the ac input through current transformer T1, monitors the total current consumed by the AN/MRC-54(V).

c. *Lighting Circuits.* Power for shelter lighting is distributed through circuit breaker CB1 (LIGHTS) and controlled by FLUORESCENTS switch S4, FLUORESCENT switch

S2, and door microswitch S1. When the shelter door is opened while NORMAL-BLACKOUT switch S3 is at BLACKOUT, all fluorescent lights are extinguished. When the fluorescent lights are out, the curtained area of the shelter is not totally dark; the neon lamp provides a small amount of illumination when the NEON switch is at ON. When the NORMAL-BLACKOUT switch is at NORMAL, door microswitch S1 is disabled.

CHAPTER 6

SHIPMENT AND LIMITED STORAGE AND DEMOLITION TO PREVENT ENEMY USE

Section I. SHIPMENT AND LIMITED STORAGE

6-1. Disassembly of Equipment

Perform the following procedures when the AN/MRC-54(V) is moved to a different location or placed in storage.

a. Turn off all equipment power switches and circuit breakers except the LIGHTS and MAIN circuit breakers and the FLUORESCENTS switch.

b. Secure all components in their cases, racks, mountings, or holders.

c. Place all miscellaneous items in the storage cabinets and secure the cabinets for transit.

d. Remove the batteries from the telephone set and hand lantern for prolonged storage or for long-distance shipment.

e. Disconnect the field wires from the LB PHONE and INTERCOM binding posts in the SIGNAL AND POWER ENTRANCE box (fig. 1-6).

f. Disconnect the spiral-four cable and the antenna cables from their connectors in the SIGNAL AND POWER ENTRANCE box. Replace the covers on all connectors and receptacles.

Warning: During disassembly of the antenna system, conform to all safety requirements of TB SIG 291. INJURY or DEATH can result from failure to comply with safe practices.

g. Disassemble the antenna system (TM 11-5820-287-20). Reverse the procedures described in paragraph 2-3 to store the components in the shelter facility.

h. If power was obtained from a generator set, proceed as follows:

- (1) Stop the generator set.
- (2) Disconnect the power cable from the POWER receptacle of the shelter facility. Replace both connector covers.
- (3) Disconnect the power cable from the generator set. If the power cable stub was used, disconnect it from the power cable; wind the cable on the cable reel and store the power cable stub in the storage cabinet in the shelter facility.

i. If power was obtained from a commercial power source, proceed as follows:

- (1) Turn off or disconnect the power.
- (2) Disconnect the power cable from the POWER receptacle of the shelter facility. Replace both connector covers.
- (3) Disconnect the power cable stub from the power source and from the power cable. Wind the power cable on the cable reel and store the power cable stub in the storage cabinet of the shelter facility.

j. Disconnect the ground strap from the GRD terminal in the SIGNAL AND POWER ENTRANCE box. Close and secure the cover on the SIGNAL AND POWER ENTRANCE box.

k. Disconnect the ground strap from the generator set (if used) and from the ground rods. Store the ground straps in the storage cabinets.

- l.* Close and secure the covers on the blower vents and the air filter on the door.
- m.* Remove the ground rod and secure it in the shelter (C, fig. 6-1).
- n.* Secure the power cable reel and the personnel ladder in place (f, fig. 6-1).
- o.* Recheck the area for loose items. If a generator set was used to supply power, prepare it for shipment or limited storage as described in the appropriate technical manual.
- p.* Clean the shelter facility thoroughly. Make sure that the drain plug (F, fig. 6-1) is tightly closed.
- q.* Close and lock the shelter facility.

- r.* If the AN/MRC-54(V) is truck-mounted, secure the tailgate in the upper position.

6-2. Repackaging for Shipment or Limited Storage

Repackaging of the AN/MRC-54(V) for shipment or limited storage normally will be performed at a packaging facility or by a packaging team. Should emergency packaging be required, select materials from those listed in SB 38-100. Package the set in accordance with the original packaging insofar as possible with available materials.

Section II. DEMOLITION OF MATERIEL TO PREVENT ENEMY USE

6-3. Authority for Demolition

Demolition of the equipment will be accomplished only upon the order of the commander. The destruction procedures outlined in paragraph 6-4 will be used to prevent further use of the equipment.

6-4. Methods of Destruction

Use any or all of the following methods to destroy the equipment.

- a. Smash.* Smash the controls, tubes, coils, relays, switches, capacitors, transformers, and meters.

- b. Cut.* Cut all cables and cords and slash the wiring on the components.

- c. Burn.* Burn all flammable items such as cords and technical manuals.

- d. Bend.* Bend panels, antenna components, and cabinets.

APPENDIX I

REFERENCES

The following is a list of applicable references available to the operator and maintenance repairman of the AN/MRC-54(V).

Note. One asterisk after a publication number listed below indicates that two copies of the publication are furnished as part of the AN/MRC-54(V). Because the radio components of the AN/MRC-54(V) vary as determined by the operating band requirements of the user, the presence of

two asterisks in the list below indicates that two copies of the indicated publication are included *only* when the subject equipment is furnished as part of the AN/MRC-54(V).

DA Pam 310-4	Index of Technical Manuals, Technical Bulletins, Supply Manuals (types 7, 8, and 9), Supply Bulletins, and Lubrication Orders.
SB 11-573	Painting and Preservation Supplies Available for Field Use for Electronics Command Equipment.
SB 38-100	Preservation, Packaging, Packing and Marking Materials, Supplies, and Equipment Used by the Army.
TB SIG 291	Safety Measures to be Observed When Installing and Using Whip Antennas, Field Type Masts, Towers, Antennas, and Metal Poles That are Used with Communication, Radar, and Direction Finder Equipment.
TG SIG 354*	Maintenance and Repair Procedures for S-141/G and S-144/G, and S-318/G-Type Shelters.
TB SIG 364	Field Instructions for Painting and Preserving Electronics Command Equipment.
TM 11-362*	Reel Units RL-31, RL-31B, RL-31C, RL-31D, and RL-31E.
TM 11-3895-202-20P	Organizational Maintenance Repair Parts and Special Tool Lists: Reel Units RL-31, RL-31B, RL-31C, RL-31D, and RL-31E.
TM 11-3895-202-35P	DS, GS, and Depot Maintenance Repair Parts and Special Tool Lists: Reel Units RL-31, RL-31B, RL-31C, RL-31D, and RL-31E.
TM 11-5410-206-12P	Operator and Organizational Maintenance Repair Parts and Special Tools List and Maintenance

	Allocation Chart; Shelter, Electrical Equipment S-141/G.
TM 11-5410-206-35P	DS, GS, and Depot Maintenance Repair Parts and Special Tools List: Shelter, Electrical Equipment S-141/G.
TM 11-5805-201-12*	Organizational Maintenance Manual, Telephone Set TA-312/PT.
TM 11-5805-201-20P	Organizational Maintenance Repair Parts and Special Tool Lists: Telephone Set TA-312/PT.
TM 11-5805-201-35P	Field and Depot Maintenance Repair Parts and Special Tools List: Telephone Set TA-312/PT.
TM 11-5820-263-12P*	Operator and Organizational Maintenance Repair Parts and Special Tools List and Maintenance Allocation Chart: Radio Set Group OA-1387/GRC.
TM 11-5820-263-35P	DS, GS, and Depot Maintenance Repair Parts and Special Tool Lists: Radio Set Groups OA-1387/GRC and OA-1387A/GRC.
TM 11-5820-278-12P**	Operator and Organizational Maintenance Repair Parts and Special Tools List and Maintenance Allocation Chart: Amplifier Group OA-1390/GRC.
TM 11-5820-278-35P	Field and Depot Maintenance Repair Parts and Special Tools List: Amplifier Group OA-1390/GRC.
TM 11-5820-279-12P**	Operator's and Organizational Maintenance Repair Parts and Special Tools List and Maintenance Allocation Chart: Amplifier Group OA-1392/GRC.
TM 11-5820-279-35P	Field and Depot Maintenance Repair Parts and Special Tools List: Amplifier Group OA-1392/GRC.
TM 11-5820-282-12P**	Operator and Organizational Maintenance Repair Parts and Special Tools Lists and Maintenance Allocation Chart: Amplifier Group OA-1394/GRC.
TM 11-5820-282-35P	Field and Depot Maintenance Repair Parts and Special Tools List: Amplifier Group OA-1394/GRC.
TM 11-5820-287-12*	Operator and Organizational Maintenance Manual: Radio Sets AN/GRC-24, AN/TRC-75, AN/GRC-78, AN/GRC-81, and AN/GRC-81A; Radio Terminal Sets AN/TRC-35, AN/GRC-76,

AN/GRC-79, and AN/GRC-82; Radio Relay Set AN/TRC-36; Radio Repeater Sets AN/GRC-77, AN/GRC-80, and AN/GRC-83; and Radio Set Groups AN/TRA-25, AN/TRA-25A, and OA-3668A/TRC-24.

TM 11-5820-287-12*

Operation and Organizational Maintenance Manual: Radio Sets AN/TRC-24, AN/GRC-75, AN/GRC-78, AN/GRC-81, and AN/GRC-81A; Radio Terminal Sets AN/TRC-35, AN/GRC-76, AN/GRC-79, and AN/GRC-82; Radio Relay Set AN/TRC-36; Radio Repeater Sets AN/GRC-77, AN/GRC-80, and AN/GRC-83; and Radio Set Groups AN/TRA-25, AN/TRA-25A, and OA-3668A/TRC-24.

TM 11-5820-287-20P

Organizational Maintenance Repair Parts and Special Tools List: Radio Sets AN/TRC-24, AN/GRC-75, AN/GRC-78, AN/GRC-81, and AN/GRC-81A; Radio Terminal Sets AN/TRC-35, AN/GRC-76, AN/GRC-79 and AN/GRC-82; Radio Relay Set AN/TRC-36; Radio Repeater Sets AN/GRC-77, AN/GRC-80, and AN/GRC-83; and Radio Set Group AN/TRA-25.

TM 11-5820-287-35P

Field and Depot Maintenance Repair Parts and Special Tool Lists: Radio Set AN/TRC-24, Radio Terminal Set AN/TRC-35; Radio Relay Set AN/TRC-36, Radio Set AN/GRC-75, Radio Terminal Set AN/GRC-76, Radio Repeater Set AN/GRC-77, Radio Set AN/GRC-78, Radio Terminal Set AN/GRC-79, Radio Repeater Set AN/GRC-80, Radio Set AN/GRC-81, Radio Terminal Set AN/GRC-82, and Radio Repeater Set AN/GRC-83.

TM 11-5820-293-12P**

Operator and Organizational Maintenance Repair Parts and Special Tools List and Maintenance Allocation Chart: Antenna Filter Group OA-1397/GRC.

TM 11-5820-293-35P

Field and Depot Maintenance Repair Parts and Special Tools List: Antenna Filter Group OA-1397/GRC.

TM 11-5820-296-20P

Organizational Maintenance Repair Parts and Special Tools List: Antenna Accessory Group OA-1398/GRC.

TM 11-5820-296-35P

Field and Depot Maintenance Repair Parts and Special Tools List: Antenna Accessory Group OA-1398/GRC.

TM 11-5820-302-12P**	Operator's and Organizational Maintenance Repair Parts and Special Tools List and Maintenance Allocation Chart: Antenna Group OA-1398/GRC.
TM 11-5820-302-35P	Field and Depot Maintenance Repair Parts and Special Tools List: Antenna Group OA-1389/GRC.
TM 11-5820-303-12P**	Operator's and Organizational Maintenance Repair Parts and Special Tools List and Maintenance Allocation Chart: Power Accessories Group OA-1676/GRC.
TM 11-5820-303-35P	Field and Depot Maintenance Repair Parts and Special Tools List: Power Accessories Group OA-1676/GRC.
TM 11-5820-309-12P**	Operator's and Organizational Maintenance Repair Parts and Special Tool Lists and Maintenance Allocation Chart: Amplifier Group OA-1396/GRC.
TM 11-5820-309-35P	Field and Depot Maintenance Repair Parts and Special Tools List: Amplifier Group OA-1396/GRC.
TM 11-5820-310-12P**	Operator's and Organizational Maintenance Repair Parts and Special Tool Lists and Maintenance Allocation Chart: Antenna-Filter Group OA-1395/GRC.
TM 11-5820-310-35P	Field and Depot Maintenance Repair Parts and Special Tools List: Antenna-Filter Group OA-1395/GRC.
TM 11-5820-311-12P**	Operator's and Organizational Maintenance Repair Parts and Special Tools List and Maintenance Allocation Chart: Antenna Filter Group OA-1391/GRC.
TM 11-5820-311-35P	Field and Depot Maintenance Repair Parts and Special Tools List: Antenna Filter Group OA-1391/GRC.
TM 11-5820-312-12P**	Operator and Organizational Maintenance Repair Parts and Special Tools List and Maintenance Allocation Chart: Antenna Filter Group OA-1393/GRC.
TM 11-5820-312-35P	Field and Depot Maintenance Repair Parts and Special Tools List: Antenna Filter Group OA-1393/GRC.
TM 11-5820-287-20P-15	Organizational Maintenance Repair Parts and Special Tool Lists: Radio Set Groups AN/TRA-25 and AN/TRA-25A, and AN/TRA-25B.

TM 11-5870-287-35P-15	DS, GS, and Depot Maintenance Repair Parts and Special Tools List: Radio Set Group AN/TRA-25, AN/TRA-25A, and AN/TRA-25B.
TM 11-5820-506-12P	Operator and Organizational Repair Parts and Special Tools List: Radio Set Group OA-3668A/TRC-24.
TM 11-5820-506-35P	Field and Depot Maintenance Repair Parts and Special Tool Lists: Radio Set Group OA-3668A/TRC-24.
TM 11-5820-517-12P**	Operator and Organizational Maintenance Repair Parts and Special Tools List and Maintenance Allocation Chart: Antenna AT-903/G.
TM 11-5820-517-35P	Field and Depot Maintenance Repair Parts and Special Tools List: Antenna AT-903/G.
TM 11-5830-221-12*	Operator's and Organizational Maintenance Manual: Intercommunication Stations LS-147A/FI, LS-147B/FI, LS-147C/FI, and LS-147D/FI.
TM 11-5830-221-20P	Organizational Maintenance Repair Parts and Special Tool Lists: Intercommunication Stations LS-147A/FI, LS-147B/FI, LS-147C/FI and LS-147D/FI.
TM 11-5830-221-35	Field and Depot Maintenance Manual: Intercommunication Stations LS-147A/FI, LS-147B/FI, LS-147C/FI, and LS-147D/FI.
TM 5830-221-35P	Field and Depot Maintenance Repair Parts and Special Tool Lists: Intercommunication Stations LS-147A/FI, LS-147B/FI, LS-147C/FI, and LS-147D/FI.
TM 11-5965-224-15P	Operator, Organizational, Field and Depot Maintenance Repair Parts and Special Tool Lists and Maintenance Allocation Chart: Handsets H-60/PT and H-165/U.
TM 38-750	Army Equipment Record Procedures.

APPENDIX II

BASIC ISSUE ITEMS

Section I. INTRODUCTION

1. Scope

This appendix lists items comprising an operable equipment and those required for installation, operation, or operator's maintenance for Repeater Set, Radio AN/MRC-54(V).

2. Explanation of Columns

The following is a list of explanations of columns in section II.

a. Source, Maintenance, and Recoverability Codes (SMR) Column.

(1) *Source code (s).* The selection status and source for the listed item is the first code indicated in this column. The source code used and its explanation is:

Code	Explanation
P	Applies to repair parts that are stocked in or supplied from GSA/DSA, or Army supply system, and authorized for use at indicated maintenance categories.

(2) *Maintenance code (M).* The lowest category of maintenance authorized to install the item is indicated by the second code in the column. The maintenance category codes and their explanations are:

Code	Explanation
C	Operator/Crew
O	Organizational Maintenance

(3) *Recoverability code (R).* The recoverability code is the third code in the column. It indicates whether unserviceable items should be returned for recovery or salvage. Recoverability code and its explanation is as follows:

Note. When no code is indicated in the recoverability column, the part will be considered expendable.

Code Explanation

R—Applies to repair parts and assemblies that are economically repairable at DSU and GSU activities and are normally furnished by supply on an exchange basis.

b. Federal Stock Number Column. This column indicates the Federal stock number for the item.

c. Description Column. This column includes the Federal item name and any additional description of the item which may be required. A part number or other reference number is followed by the applicable five-digit Federal Supply Code for Manufacturers. When required to indicate that the part is used on the models, or serially numbered groups so identified, the numbers 1, 2, 3, 4, etc. are placed under the heading *Usable on Code*. An explanation of the codes used precedes the first item in section II of the basic issue items list.

d. Unit of Measure Column. The unit used as a basis of measure (e.g., ea, pr, ft, yd, etc.) is given in this column.

e. Quantity Incorporated in Unit Column. The total quantity of the item used in the equipment is given in this column.

f. Quantity Furnished with Equipment Column. This column lists the quantity of the item supplied for initial operation of the equipment and/or the quantities authorized to be kept on hand by the operator for maintenance of the equipment.

g. Illustrations Column.

(1) *Figure number (a).* The number of the illustration in which the item is shown is indicated in this column.

(2) *Item No. or reference designation (b).*
Not used.

3. Batteries

Dry batteries shown are used with the equipment

but are not considered part of the equipment. They will not be preshipped automatically but are to be requisitioned in quantities necessary for the particular organization in accordance with SB 11-6.

SECTION II. BASIC ISSUE ITEMS

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION Reference Number & Mfr Code	(4) UNIT OF MEAS USABLE ON CODE	(5) QTY INC IN UNIT	(6) QTY FURN WITH EQUIP	(7) ILLUSTRATIONS	
						(a) FIG. NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
P-O-R	5820-999-1796	REPEATER SET, RADIO AM/MRC-54(V): (This item is nonexpendable) TECHNICAL MANUAL TM 11-5820-203-15 Requisition through pinpoint account number if assigned; otherwise through nearest Adjutant General facility. A quantity of 1 technical manual is packed with each equipment. Where a valid need exists, additional copies may be requisitioned and kept on hand. TECHNICAL BULLETIN TB-SIG-354 Requisition through pinpoint account number if assigned; otherwise through nearest Adjutant General facility.	ea				
P-C-R	6115-823-2425	GENERATOR SET, GASOLINE ENGINE, TRAILER MOUNTED PU-4744; (Used with but not part of AM/MRC-54(V))	ea	1	1		
P-C-R	3895-252-6896	REEL UNIT RL-31	ea	1	1		
P-C-R	5410-647-0118	SHELTER, ELECTRICAL EQUIPMENT S-177/MRC-54(V); S-177A,B,C,D,E/MRC-54(V); (S-141()/G-SHELTER MODIFIED)	ea	1	1	1-3	
P-C-R	5805-543-0012	TELEPHONE SET TA-312/PT RADIO EQUIPMENT	ea	1	1	2-2	
P-C	5995-904-6106	CABLE ASSEMBLY, POWER ELECTRICAL CX-11215/G	ea	1	1		
P-C	5995-549-4857	CABLE ASSEMBLY, POWER ELECTRICAL CX-2254/U; (10 ft)	ea	2	2		
P-C	5975-393-1269	CLAMP ASSEMBLY: SC-C-66471; 80063	ea	10	10		
P-C-R	5820-543-1283	POWER ACCESSORIES GROUP OA-1676/GRC; (Less case, accessories CY-1343/TRC); (Less inter-connecting box J-352/U)	ea	1	1	6-1	
P-C-R	5820-566-7945	ANTENNA ACCESSORIES GROUP OA-1398/GRC; (Less 2 each hammer HM-3); (Less cable ass-CO-1034/U)	ea	3	3		
----R	5820-543-1116	RADIO SET GROUP OA-1397/GRC AND "A" BAND (50-100MC)	ea	3	3	6-1	
P-C-R	5820-543-0113	ANTENNA FILTER GROUP OA-1391/GRC; (Less CY-1760/GRC and CY-1344/TRC)	ea	3	3		
P-C-R	5965-543-0014	AMPLIFIER GROUP OA-1390/GRC (Less CY-1338/TRC)	ea	3	3		
P-C	5995-985-7790	CABLE ASSEMBLY, RADIOFREQUENCY CG-1030A/U	ea	6	6		
P-C	8130-292-1108	REEL, CABLE RC-404/TR OR "B" BAND (100-225MC)	ea	3	3		
P-C-R	5820-543-0111	ANTENNA FILTER GROUP OA-1193/GRC; (Less case: CY-1371/TRC and CY-1344/TRC)	ea	3	3		
P-C-R	5820-543-0112	AMPLIFIER, GROUP OA-1392/GRC; (Less case CY-1338/TRC)	ea	3	3		
P-C	5995-985-7790	CABLE ASSEMBLY, RADIOFREQUENCY CG-1030A/U	ea	6	6		
P-C-R	8130-292-1108	REEL, CABLE RC-404/TR	ea	3	3		
P-C-R	5820-543-0115	ANTENNA GROUP OA-1389/GRC; (Less cases CY-1385/TRC and CY-1387/TRC)	ea	1	1		
P-C-R	5820-543-0115	ANTENNA GROUP OA-1389/GRC; (Less cases CY-1385/TRC and CY-1387/TRC; less socket wrench handle, 1/2 in socket wrench; 9/16 in socket wrench; 7/8 in open wrench; and 1/2 in - 9/16 in box wrench) OR "C" BAND (225-400 MC)	ea	2	2		
P-C-R	5820-543-0109	ANTENNA FILTER GROUP OA-1395/GRC; (Less cases CY-1370/TRC and CY-1344/TRC)	ea	3	3		
P-C-R	5820-543-0110	AMPLIFIER GROUP OA-1394/GRC (Less case CY-1338/TRC)	ea	3	3		
P-C-R	5995-985-7790	CABLE ASSEMBLY, RADIOFREQUENCY CG-1030A/U	ea	6	6	6-1	
P-C-R	8130-292-1108	REEL, CABLE RC-404/TR	ea	3	3	6-1	

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SECTION II. BASIC ISSUE ITEMS (CONTINUED)

(1) SHR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION Reference Number & Mfr Code	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) QTY FURN WITH EQUIP	(7) ILLUSTRATIONS	
						(a) FIG. NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
P-C-R	5820-543-0115	ANTENNA GROUP OA-1389/GRC: (Less cases CY-1385/TRC and CY-1387/TRC)	ea	1	1	6-1	
P-C-R	5820-543-0115	ANTENNA GROUP OA-1389/GRC: (Less cases CY-1385/TRC and CY-1387/TRC; less socket wrench handle; 1/2 in socket wrench; 9/16 in socket wrench; 7/8 in open end wrench; and 1/2 in - 9/16 in box wrench) OR "D" BAND (400-600MC)	ea	2	2	6-1	
P-C-R	5820-543-0107	ANTENNA FILTER GROUP OA-1397/GRC: (Less cases CY-1761/GRC and CY-1344/TRC)	ea	3	3		
P-C-R	5820-543-0108	AMPLIFIER GROUP OA-1396/GRC: (Less case CY-1338/TRC)	ea	3	3		
P-C	5995-985-7790	CABLE ASSEMBLY, RADIOFREQUENCY CG-1030A/U	ea	6	6	6-1	
P-C-R	8130-292-1108	KEEL, CABLE RC-404/TR	ea	3	3	6-1	
P-C-R	5820-543-0115	ANTENNA GROUP OA-1389/GRC: (Less cases CY-1385/TRC and CY-1387/TRC)	ea	1	1	6-1	
P-C-R	5820-543-0115	ANTENNA GROUP OA-1389/GRC: (Less cases CY-1385/TRC and CY-1387/TRC; less socket wrench handle; 1/2 in socket wrench; 9/16 in socket wrench; 7/8 in open end wrench; and 1/2 in - 9/16 in box wrench) OR "F" BAND (790-965MC)	ea	2	2	6-1	
P-C-R	5820-776-5406	RADIO SET GROUP AM/TRA-25: (Less cases CY-2854/TRA-25 and CY-2853/TRA-25)	ea	3	3		
P-C-R	5820-324-8714	AMPLIFIER-CONVERTER AM-913/TRC	ea	3	3	6-1	
P-C-R	5820-543-0115	ANTENNA GROUP OA-1389/GRC: (Less cases CY-1385/TRC and CY-1387/TRC and AT-414/TRC)	ea	1	1	6-1	
P-C-R	5820-543-0115	ANTENNA GROUP OA-1389/GRC: (Less cases CY-1385/TRC; CY-1387/TRC; and AT-414/TRC; less socket wrench handle; 1/2 in socket wrench 9/16 in socket wrench; 7/8 in open end wrench; and 1/2 in - 9/16 in box wrench)	ea	2	2	6-1	
P-C	8130-292-1108	KEEL, CABLE RC-404/TR OR "F" BAND (790-965MC)	ea	3	3	6-1	
P-C-R	5820-856-9811	RADIO SET GROUP AM/TRA-25A: (Less cases CY-2854/TRA-25; CY-2595/GRC and CY-3622/TRA-25A)	ea	3	3		
P-C-R	5820-324-8714	AMPLIFIER-CONVERTER AM-913/TRC	ea	3	3	6-1	
P-C	8130-292-1108	KEEL, CABLE RC-404/TR	ea	3	3	6-1	
P-C-R	5820-543-0115	ANTENNA GROUP OA-1389/GRC: (Less cases CY-1385/TRC and CY-1387/TRC; AT-414/TRC and AB-325/TRC)	ea	1	1	6-1	
P-C-R	5820-543-0115	ANTENNA GROUP OA-1389/GRC: (Less cases CY-1385/TRC and CY-1387/TRC; AT-414/TRC and AB-325/TRC; Less socket wrench handle; 1/2 in socket wrench; 9/16 in socket wrench; 7/8 in open end wrench and 1/2 in - 9/16 in box wrench) OR "J" BAND (1350-1875MC)	ea	2	2	6-1	
P-C-R	5820-082-3214	RADIO SET GROUP OA-3668A/TRC-24: (Less cases CY-1338/TRC; CY-1344/TRC; CY-2595/GRC and CY-3901/TRC-24)	ea	3	3		
P-C-R	5820-543-0115	ANTENNA GROUP OA-1389/GRC: (Less cases CY-1385/TRC and CY-1387/TRC; AT-414/TRC and AB-325/TRC)	ea	1	1	6-1	
P-C-R	5820-543-0115	ANTENNA GROUP OA-1389/GRC: (Less cases CY-1385/TRC and CY-1387/TRC; AT-414/TRC and AB-325/TRC; Less socket wrench handle; 1/2 in - 9/16 in socket wrench; 7/8 in open end wrench and 1/2 in - 9/16 in box wrench SHIELDER, ELECTRICAL EQUIPMENT S-177/MRC-54(V) S-177A,B,C,D,E/MRC-54(V) NOTE: Handle on code 1 refers to S-177/MRC-54(V); 2 refers to S-177A/MRC-54(V); 3 refers to S-177B/MRC-54(V); 4 refers to S-177C/MRC-54(V); 5 refers to S-177D/MRC-54(V); 6 refers to S-177E/MRC-54(V)	ea	2	2	6-1	
P-O	5995-777-8804	ADAPTER, CONNECTOR UO-1312/U; SM-B-335345; 80063	ea	2	2	6-1	1,2,3,4,5,6
P-O	4210-727-8111	AXE, SINGLE BIT; GOC-A-926B; type 1; class 2; 81349	ea	1	1	6-1	1,2,3,4,5,6
P-C	7520-753-4544	BASKET, WASTE PAPER; SM-B-363005; 80063	ea	1	1	6-1	1,2,3,4,5,6

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SECTION II. BASIC ISSUE ITEMS (CONTINUED)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION Reference Number & Mfr Code	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) QTY FURN WITH EQUIP	(7) ILLUSTRATIONS	
						(a) FIG. NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
P-C	6135-120-1020	BATTERY BA-30	1,2,3,4,5,6	ea			
P-C	7510-753-4542	BINDER, LOOSE LEAF; SM-B-335395; 80063	1,2,3,4,5,6	ea	2	2	
P-C	7920-240-6358	BRUSH, DUSTING, BENCH; SM-B-364924; 80063	1,2,3,4,5,6	ea	1	1	6-1
P-C	5995-889-1228	CABLE ASSEMBLY, POWER, ELECTRICAL CX-4694A/U; (10 ft) SC-DL-335418; 80063	1,2,3,4,5,6	ea	1	1	1-8
P-C	5995-681-8446	CABLE ASSEMBLY, POWER, ELECTRICAL CX-4772/U; SC-DL-363754; 80063	1,2,3,4,5,6	ea	1		1-9
P-C	5995-681-8445	CABLE ASSEMBLY, POWER, ELECTRICAL CX-4773/U; (6 ft 2 in) SC-DL-363752; 80063	1,2,3,4,5,6	ea	1	1	1-9
P-C	5995-889-0905	CABLE ASSEMBLY, TELEPHONE CX-1606/G; SM-B-364236; 80063 (3 ft)	1,2,3,4,5,6	ea	2	2	1-9
P-C-R	7105-269-8463	CHAIR, FOLDING; SM-B-335417; 80063	1,2,3,4,5,6	ea	1	1	6-1
P-O-R	6645-303-4950	CLOCK, AIRCRAFT, MECHANICAL; SM-B-364789; 80063	1,2,3,4,5,6	ea	1	1	6-1
P-O		COMPASS, MAGNETIC; Type #5600-1/2; 33363	1,2,3,4,5,6	ea	1	1	1-9
P-O	5995-681-8470	CORD, ASSEMBLY, ELECTRICAL CX-4695/U; (2 ft) SC-DL-370292; 80063	1,2,3,4,5,6	ea	2	2	1-9
P-C	7210-753-3043	CUSHION, CHAIR AND STOOL; SM-B-335428; 80063	1,2,3,4,5,6	ea	1	1	6-1
P-C	5960-272-9182	ELECTRON TUBE; Not mounted; 6 x 4w; 81349	1,2,3,4,5,6	ea		1	
P-C	5960-669-6861	ELECTRON TUBE; Not mounted; 6005/6A65W; 81349	1,2,3,4,5,6	ea		1	
P-C	5960-681-9802	ELECTRON TUBE; Not mounted; 6AU6MA; 81349	1,2,3,4,5,6	ea		1	
P-C-R	4210-270-4512	EXTINGUISHER, FIRE, CARBON DIOXIDE; SM-B-364217; 80063	1,2,3,4,5,6	ea	1	1	6-1
P-C-R	4210-270-4512	EXTINGUISHER, FIRE CARBON DIOXIDE; SM-B-364218; 80063	1,2,3,4,5,6	ea	1	1	6-1
P-O	5120-293-2692	EXTRACTOR, ELECTRON TUBE; SM-B-364371; 80063	1,2,3,4,5,6	ea	1	1	1-10
P-O	5120-752-8862	EXTRACTOR, ELECTRON TUBE; SM-B-364370; 80063	1,2,3,4,5,6	ea	1	1	1-10
P-C-R	4140-687-8589	FAN, CENTRIFUGAL; SM-D-464168; 80063	5,6	ea	1	1	6-1
P-C-R	4140-687-8590	FAN, CENTRIFUGAL; SM-D-464169; 80063	5,6			1	6-1
P-C	6545-922-1200	FIRST AID KIT, GENERAL PURPOSE; SC-C-539483; 80063	1,2,3,4,5,6				
P-C	5920-280-4465	FUSE, CARTRIDGE; (Not mounted) F02A250V1A5; 81349	1,2,3,4,5,6		5		
P-O	5120-776-9917	GRIP, CABLE MOVING; SM-B-335430; 80063	1,2,3,4,5,6	ea	5	5	1-9
P-O	5120-251-4489	HAMMER, HAND; #15; 79796	1,2,3,4,5,6	ea	1	1	6-1
P-O	5975-682-0519	HANGER, CABLE; SM-B-362104; 80063	1,2,3,4,5,6	ea	2	2	1-9
P-C	4520-224-7909	HEATER, SPACE, ELECTRIC; #AAT-15A; 72143	2,3,4,5,6	ea	1	1	6-1
P-C-R	4520-649-8145	HEATER, SPACE, ELECTRIC HD-375/U		ea	1	1	6-1
P-O	5820-706-3036	HOCK; SM-B-364049; 80063	1,2,3,4,5,6	ea	2	2	1-10
P-C-R	5830-752-5357	INTERCOMMUNICATION STATION LS-147C/FI	1,2,3,4,5,6	ea	1	1	6-1
P-O	2540-892-6243	LANDER, VEHICLE BOARDING MX-3391/G; SC-DL-108736; 80063	1,2,3,4,5,6	ea	1	1	6-1
P-O	6240-538-8447	LAMP, FLUORESCENT; #F20T12/CW; 24455	1,2,3,4,5,6	ea	7	3	1-11
P-O	6240-223-9104	LAMP, GLOW; NE-40; 81349	1,2,3,4,5,6	ea	1	1	1-11
P-O	6240-270-4286	LAMP, GLOW; NE-21; 81349	1,2,3,4,5,6	ea	12	3	1-11 4-5
P-C	6240-143-3070	LAMP, INCANDESCENT; (50W); (not installed); #50W/RS; 24455	1,2,3,4,5,6	ea	1	1	1-11
P-O	6240-179-1814	LAMP, GLOW; NE-45; 81349	6	ea	12	3	4-5

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SECTION II. BASIC ISSUE ITEMS (CONTINUED)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION Reference Number & Mfr Code	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) QTY FURN WITH EQUIP	(7) ILLUSTRATIONS	
						(a) FIG. NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
P-O	6240-155-7786	LAMP, INCANDESCENT: #PR-2; 24455 1,2,3,4,5,6	ea	1	1	1-11 6-4	
P-O	6230-729-9614	LANTERN, ELECTRIC: Model #2106-7; 32572 1,2,3,4,5,6	ea	1	1	6-1	
P-O	5410-752-2525	LEAD, ELECTRICAL: SM-B-352166C; 80063 1,2,3,4,5,6	ea	1	1	1-9	
P-C	6230-615-5384	LIGHT, EXTENSION: (25'); Part #5060B25-15-2-SJ; 79409 1,2,3,4,5,6	ea	1	1		
P-C		PADLOCK: #741C; 81741 1,2,3,4,5,6	ea	1	1	1-3	
P-O-R	8130-656-1090	REEL, CABLE RC-435/U; SC-DL-69296-G; 80063 1,2,3,4,5,6	ea	1	1	1-8	
P-O	5975-224-5260	ROD, GROUND MX-148/G; SC-DL-4158; 80063 1,2,3,4,5,6	ea	1	1	6-1	
P-C	5120-752-9675	SCREWDRIVER: #2143-6; 08600 1,2,3,4,5,6	ea	1	1	1-10	
P-C	7520-162-6178	SHARPENER, PENCIL: SC-C-539503; 80063 1,2,3,4,5,6	ea	1	1	6-1	
P-O	6210-686-5568	SHIELD, LIGHT: SM-B-335531; 80063 1,2,3,4,5,6	ea	7	7	4-7	
P-C	5410-805-5533	SLING, MULTIPLE LEG: SC-D-36423; 80063 1,2,3,4,5,6	ea	1	1	2-4	
P-O	6250-299-2884	STARTER, FLOURESCENT LAMP: PB-2; 24455 1,2,3,4,5,6	ea	7	6	1-11	
P-O-R	5210-221-1882	TAPE, MEASURING: C-256; 37163 1,2,3,4,5,6	ea	1	1	1-9	
		NO ACCESSORIES, TOOLS OR TEST EQUIPMENT ARE TO BE ISSUED WITH THIS EQUIPMENT					
		NO BASIC ISSUE ITEMS ARE MOUNTED IN OR ON THE EQUIPMENT					

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APPENDIX III

MAINTENANCE ALLOCATION

Section I. INTRODUCTION

1. General

This appendix assigns maintenance functions to be performed on components, assemblies, and subassemblies by the lowest appropriate maintenance category.

2. Columns

a. Columns in the maintenance allocation chart are as follows:

- (1) *Part or component.* This column shows only the nomenclature or standard item name. Additional descriptive data are included only where clarification is necessary to identify the component. Components, assemblies, and subassemblies are listed in top-down order. That is, the assemblies which are part of a component are listed immediately below that component, and subassemblies which are part of an assembly are listed immediately below that assembly. Each generation breakdown (components, assemblies, or subassemblies) are listed in disassembly order or alphabetical order.

- (2) *Maintenance function.* This column indicates the various maintenance functions allocated to the categories.

- (a) *Service.* To clean, to preserve, and to replenish lubricants.
- (b) *Adjust.* To regulate periodically to prevent malfunction.
- (c) *Inspect.* To verify serviceability and detect incipient electrical or mechanical failure by scrutiny.
- (d) *Test.* To verify serviceability and to detect incipient electrical or me-

chanical failure by use of special equipment such as gages, meters, etc.

- (e) *Replace.* To substitute serviceable components, assemblies, or subassemblies, for unserviceable components, assemblies, or subassemblies.
- (f) *Repair.* To restore an item to serviceable condition through correction of a specific failure or unserviceable condition. This function includes but is not limited to welding, grinding, riveting, straightening, and replacement of parts other than the trial and error replacement of running spare type items such as fuses, lamps, or electron tubes.
- (g) *Align.* To adjust two or more components of an electrical system so that their functions are properly synchronized.
- (h) *Calibrate.* To determine, check, or rectify the graduation of an instrument, weapon, or weapons system, or components of a weapons system.
- (i) *Overhaul.* To restore an item to *completely serviceable* condition as prescribed by serviceability standards developed and published by heads of technical services. This is accomplished through employment of the technique of "Inspect and Repair Only as Necessary" (IROAN). Maximum utilization or diagnostic and test equipment is combined with minimum disassembly of the item during the overhaul process.

- (j) *Rebuild.* To restore an item to a standard as near as possible to original or new condition in appearance, performance, and life expectancy. This is accomplished through the maintenance technique of complete disassembly of the item, inspection of all parts or components, repair or replacement of worn or unserviceable elements using original manufacturing tolerances and/or specifications and subsequent reassembly of the item.
- (3) *Operator, organization, direct support, general support, and depot.* The symbol X indicates the categories responsible for performing that particular maintenance operation, but does not necessarily indicate that repair parts will be stocked at that level. Categories higher than those marked by X are authorized to perform the indicated operation.
- (4) *Tools required.* This column indicates codes assigned to each individual tool equipment, test equipment, and maintenance equipment referenced. The grouping of codes in this column of the maintenance allocation chart

indicates the tool, test, and maintenance equipment required to perform the maintenance function.

- (5) *Remarks.* Entries in this column will be utilized when necessary to clarify any of the data cited in the preceding column.

b. Columns in the allocation of tools for maintenance functions are as follows:

- (1) *Tools required for maintenance functions.* This column lists tools, test, and maintenance equipment required to perform the maintenance functions.
- (2) *Operator, organization, direct support, general support, and depot.* The dagger (†) symbol indicates the categories normally allocated the facility.
- (3) *Tool code.* This column lists the tool code assigned.

2. Maintenance by Using Organizations

When this equipment is used by signal services organizations organic to theater headquarters or communication zones to provide theater communications, those maintenance functions allocated up to and including general support are authorized to the organization operating this equipment.

SECTION: II. MAINTENANCE ALLOCATION CHART

PART OR COMPONENT	MAINTENANCE FUNCTION	ECHELON					TOOLS REQUIRED	REMARKS
		O/C	O	DS	GS	D		
RADIO REPEATER SET AN/MRC-54(V)	service	X	X				4	Preventive maintenance
	inspect	X						
	test	X					1, 4	System operation using built-in facilities
				X				Continuity checks of signal, power and lighting circuits
repair					X			Test in accordance with component maintenance allocation
		X						Test in accordance with component maintenance allocation
				X				Repair as determined by component maintenance allocation
					X			Repair as determined by component maintenance allocation
rebuild overhaul						X	4, 5	Repair as determined by component maintenance allocation
						X		Repair as determined by component maintenance allocation
						X		Shelter facility only
						X		By component
AMPLIFIER GROUP OA-1390/GRC	test							For authorized allowances see TM 11-5820-278-12P
AMPLIFIER GROUP OA-1392/GRC	test							For authorized allowances see TM 11-5820-279-12P
AMPLIFIER GROUP OA-1394/GRC	test							For authorized allowances see TM 11-5820-282-12P
AMPLIFIER GROUP OA-1396/GRC	test							For authorized allowances see TM 11-5820-309-12P
ANTENNA GROUP OA-1389/GRC	test							For authorized allowances see TM 11-5820-302-12P
ANTENNA ACCESSORIES GROUP OA-1398/GRC	test							For authorized allowances see TM 11-5820-287-20
ANTENNA FILTER GROUP OA-1391/GRC	test							For authorized allowances see TM 11-5820-311-12P
ANTENNA FILTER GROUP OA-1393/GRC	test							For authorized allowances see TM 11-5820-312-12P
ANTENNA FILTER GROUP OA-1395/GRC	test							For authorized allowances see TM 11-5820-310-12P
ANTENNA FILTER GROUP OA-1397/GRC	test							For authorized allowances see TM 11-5820-293-12P
POWER ACCESSORIES GROUP OA-1676/GRC	test							For authorized allowances see TM 11-5820-303-12P
RADIO SET GROUP AN/TRA-25, AN/TRA-25A	test							For authorized allowances see TM 11-5820-457-12P

PART OR COMPONENT	MAINTENANCE FUNCTION	ECHELON					TOOLS REQUIRED	REMARKS
		O/C	O	DS	GS	D		
AN/MRC-54(V) (continued)								
RADIO SET GROUP OA-1387/GRG	test							For authorized allowances see TM 11-5820-263-12P
RADIO SET GROUP OA-3668A/TRC-24	test							For authorized allowances see TM 11-5820-506-12P
ANTENNA AT-903/G	test							For authorized allowances see TM 11-5820-517-12P
REEL UNIT RL-31 B,C,D,E	test							For authorized allowances see TM 11-362
SHELTER, ELECTRICAL EQUIPMENT S-177/MRC-54(V)	inspect test		X				1, 4	Shelter continuity checks of power, signal and lighting circuits
	repair		X				2, 3, 6 4, 5	All tests Except door panel, gaskets, skids, molding strips, lifting and toeing eyes
	rebuild overhaul					X	4, 5 4, 5 5 4, 5	Except skids, door panels All repairs
CABLE ASSEMBLIES, POWER	test		X				1	
	replace		X				4	
	replace repair		X				4	
CLOCK	replace			X				MOCOM item
EXTINGUISHER, FIRE	replace		X					Corps engineers responsibility
	recharge		X					Corps engineers responsibility
HEATER, ELECTRIC	test		X				1	
	replace		X				4	
	replace repair		X				4	
INTERCOMMUNICATION STATION LS-147A,B,C,D/FI	test							For authorized allowances see TM 11-5830-221-12
TELEPHONE SET TA-312/PT	test							For authorized allowances see TM 11-2155
GENERATOR, RINGING HAND G-42/PT, G-42A/PT	test							For authorized allowances see TM 11-5805-257-12P
HANDSET H-60/PT, H-165/U	test							For authorized allowances see TM 11-5965-224-15P

SECTION III. ALLOCATION OF TOOLS FOR MAINTENANCE FUNCTIONS

TOOLS REQUIRED FOR MAINTENANCE FUNCTIONS	ECHELON						TOOL CODE	REMARKS
	O/C	O	DS	GS	D			
AN/MRC-54(V) (continued)								
MULTIMETER AN/URM-105							1	
MULTIMETER TS-352/U							2	
OHMMETER ZM-21A/U							3	
TOOL EQUIPMENT TE-123							4	
TOOL KIT, GENERAL MECHANIC (FSN 5180-754-0641)							5	
TOOLS AND TEST EQUIPMENT ASSOCIATED WITH COMPONENTS OF THIS EQUIPMENT							6	
NOTE: DEPOT MAY USE ANY OTHER TYPES OF TOOLS AND TEST EQUIPMENT REQUIRED TO OVERHAUL OR REBUILD THIS EQUIPMENT.								

APPENDIX IV

ORGANIZATIONAL, DS, GS, AND DEPOT REPAIR PARTS

Section I. INTRODUCTION

1. Scope

This appendix contains a list of repair parts required for the performance or organizational maintenance and a list covering the corresponding requirements for direct support, general support, and depot maintenance for Repeater Set, Radio AN/MRC-54(V).

Note. No special tools, test, and support equipment are required.

2. General

The repair parts list is divided into the following sections:

a. Prescribed Load Allowance (PLA), Section II. The PLA is a consolidated listing of repair parts allocated for initial stockage at the organizational maintenance category. This is a mandatory minimum stockage allowance.

b. Repair Parts for Organizational Maintenance, Section III. Repair parts authorized for organizational maintenance are included in this section.

c. Repair Parts for Direct Support, General Support, and Depot Maintenance, Section IV. Repair parts authorized for direct support, general support, and depot maintenance are included in this section.

Note. All indexes noted below are cross referenced to index numbers. The index numbers appear in ascending sequence in column 1 of the repair parts list (para A4-3a). The index number for the particular item will be the same for the item in all sections of this appendix.

d. Federal Stock Number Cross Reference to Index Number, Section V. This is a cross reference index of Federal stock numbers to index numbers.

e. Figure and Item Number Cross Reference to Index Number, Section VI. This is a cross reference index of figure number and item number (or reference designation) to index number. The figure numbers are listed in numerical sequence; item numbers and/or reference designations are listed for each figure.

f. Reference Designation Cross Reference to Index Number, Section VII. This is a cross reference index of reference designations and/or item numbers to index numbers.

3. Explanation of Columns

An explanation of the columns is given below.

a. Source, Maintenance, and Recoverability Code (SMR) and Index Numbers Column. The first line in this column lists the application SMR codes for the part. Listed in ascending order directly below the SMR codes is the index number assigned to the repair part.

(1) *Source code (S).* The selection status and source for the listed item is noted here. Source code and its explanation is as follows:

Code	Explanation
P	Applies to repair parts that are stocked in or supplied from the GSA/DSA, or Army supply system, and authorized for use at indicated maintenance categories.

(2) *Maintenance code (M).* The lowest category of maintenance authorized to install the listed item is noted here.

Code	Explanation
C	Operator/Crew
O	Organizational Maintenance
F	Direct Support Maintenance
H	General Support Maintenance

(3) *Recoverability code (R)*. The information in this column indicates whether unserviceable items should be returned for recovery or salvage. Recoverability code and its explanation is as follows:

Note. When no code is indicated in the recoverability column, the part will be considered expendable.

Code	Explanation
R	Applies to repair parts and assemblies which are economically repairable at DSU and GSU activities and normally are furnished by supply on an exchange basis.

b. Federal Stock Number Column. The Federal stock number for the item is listed in this column.

c. Description Column. This column includes the Federal item name and any additional description of the item required, the manufacturer's part number (reference number), and the applicable five-digit Federal Supply Code for Manufacturers (para A4-5). Also included in this column are the designators 1, 2, 3, 4, etc. listed under the heading *Usable on Code*. The designators, which are explained at the beginning of the description column in the repair parts list, indicate that the part is used on the model or serially numbered groups so identified.

d. Unit of Measure Column. The unit used as a basis of measure (e.g., ea, pr, ft, yd, etc.) is indicated on this column.

e. Quantity Incorporated in Unit Column. The quantity of repair parts in an assembly is given in this column.

f. Maintenance Allowances Column.

(1) The maintenance allowance columns are divided into subcolumns. Indicated in each subcolumn is the total quantity of items authorized for the number of equipments supported. Items authorized for use as required, but not for initial stockage, are identified with an asterisk (*) in the allowance column.

(2) The quantitative allowances for organizational category of maintenance represents one initial prescribed load for a 15-day period for the number of equipments supported. Units and organizations authorized additional prescribed loads will multiply the number of prescribed loads

authorized by the quantity of repair parts reflected in the appropriate density column to obtain the total quantity of repair parts authorized.

(3) Subsequent changes to organizational allowances will be limited as follows: No change in the range of items is authorized. If additional items are considered necessary, recommendations should be forwarded to Commanding General, U.S. Army Electronics Command, ATTN: AMSEL-ME-NMP-C, For Monmouth, N.J. 07703, for exception or revision to the allowance list. Revisions to the range of items authorized will be made by the USA ECOM National Maintenance Point based upon engineering experience, demand data, or TAERS information.

(4) The quantitative allowances for DS/GS categories of maintenance will represent initial stockage for a 30-day period for the number of equipments supported.

g. One-Year Allowances Per 100 Equipments/Contingency Planning Purposes Column. The total quantity required for distribution and contingency planning purposes is indicated in this column. The range of items indicates total quantities of all authorized items required to provide for adequate support of 100 equipments for one year.

h. Depot Maintenance Allowance Per 100 Equipments Column. This column indicates the total quantity of each item authorized depot maintenance for 100 equipments.

i. Illustrations Column.

(1) *Figure number (a).* The number of the illustration in which the item is shown is indicated in this column.

(2) *Item No. or reference designation (b).* The reference designation used to reference the item in the illustration appears in this column.

4. Location of Repair Parts

a. This appendix contains three cross-reference indexes (sect V, VI, and VII), to be used to locate a repair part when either the Federal stock number, reference number (manufacturer's part number), figure number, or reference designation and/or item number is known. The first column in each cross-reference index is prepared, as ap-

plicable, in numerical or alphanumerical sequence. The last column of each cross-reference index lists the index number assigned to the part.

b. Refer to the appropriate cross-reference index (para A4-2d, e, f) and note the index number in the last column; then refer to the repair parts list to locate the index number which is listed in ascending order in column 1 of the repair parts list.

5. Federal Supply Codes

This paragraph lists the Federal supply code with the associated manufacturer's name.

<i>Code</i>	<i>Manufacturer's name</i>
02660	Amphenol Corp
04009	Arrow-Hart and Hegeman Electric Co
08600	Bridgepart Hardware Mfg Co
09922	Burndy Corp
17465	Cutler-Hammer Inc Power Distribution and Control Div
24455	General Electric Co Lamp Div of Consumer Products Group
32572	Justrite Mfg Co

<i>Code</i>	<i>Manufacturer's name</i>
33363	Keuffel and Esser Co
37163	Lufkin Rule Co
44094	Northern Electric Co
60399	Torrington Mfg Co
61864	United-Carr Inc
63325	Vulcan Electric Co
65289	White-Rogers Co
65595	Wilcolator Co
70611	Ark-Les Switch Corp
71286	Camloc Fastener Corp
72143	Friden, Inc, Electromode Division
72512	Davis Harry Molding Co
72619	Dialight Corp
72765	Drake Mfg Co
72794	Dzus Fastener Co Inc
73586	Circle F. Industries
74545	Hubbell Harvey Inc
75915	Littlefuse Inc
79409	Woodhead Daniel Co
79796	Woodings Verona Tool Works
80063	Army Electronics Command
80660	Canada Wire and Cable Co Ltd
81349	Military Specifications
81741	Chicago Lock Co
88434	Square D Co
93410	Stevens Mfg Co Inc
95344	Economy Cable Grip Co

SECTION II. PRESCRIBED LOAD ALLOWANCE

(1) FEDERAL STOCK NUMBER	(2) DESCRIPTION	USABLE ON CODE	(3) 15-DAY ORG. MAINT. ALLOWANCE			
			(a) 1-5	(b) 6-20	(c) 21-50	(d) 51-100
4030-267-7024	FASTENER, BEAD CHAIN: SM-B-364618; 80063	1,2,3,4,5,6	*	*	*	2
5310-630-0868	WASHER, THRUST: #91S3-1; 71286		2	2	4	7
5325-285-3371	LOCKSPRING, TURNLOCK FASTENER: #S4-225; 72794	1,2,3,4,5,6	*	*	2	2
5325-290-2890	STUD, SNAP FASTENER: No. 559; 61864	1,2,3,4,5,6	*	2	2	3
5325-290-2898	STUD, TURNLOCK FASTENER: No. AN5-25-U/WX105Wing; 72794	1,2,3,4,5,6	*	*	2	2
5325-290-4345	LOCKSPRING, TURNLOCK FASTENER: SM-B-370529; 80063	1,2,3,4,5,6	*	*	2	2
5330-682-4623	INSULATOR, BUSHING: SM-B-335556; 80063	1,2,3,4,5,6	*	*	*	2
5340-682-1826	CLIP, SPRING TENSION: SM-B-335533; 80063	1,2,3,4,5,6	*	*	*	2
5910-553-6096	CAPACITOR, FIXED, PAPER DIELECTRIC: SC-C-33033-4; 80063	1,2,3,4,5,6	*	*	2	2
5925-682-1071	CIRCUIT BREAKER: SM-B-364358; 80063	1,2,3,4,5,6	*	*	*	2
5925-815-6657	CIRCUIT BREAKER: Type-Q0-1515; 88434	2,3,4,5,6	*	*	2	2
5925-818-4811	CIRCUIT BREAKER: SM-B-364359; 80063	2,3,4,5,6	*	*	2	2
5925-818-4811	CIRCUIT BREAKER: SM-B-364359; 80063	1	*	2	2	3
5930-504-9923	SWITCH, TOGGLE: #7563K4; 17465	2,3,4,5,6	*	*	*	2
5930-636-4014	SWITCH, TOGGLE: #GE5521-1; 24455	1,2,3,4,5,6	*	*	2	2
5930-669-7465	SWITCH, SENSITIVE: SM-B-364515; 80063	1,2,3,4,5,6	*	*	*	2
5930-682-0349	SWITCH, THERMOSTATIC: #3381; type GI; spec 4142; 65595	1	*	*	*	2
5930-705-9131	SWITCH, ROTARY: No. 2800H41; 70611	1	*	*	*	2
5930-707-1313	SWITCH, THERMOSTATIC: Type SM-4; 93410	1	*	*	*	2
5930-734-5202	SWITCH, THERMOSTATIC: #10172H334A1; 17465	2,3,4,5,6	*	*	*	2
5935-257-6374	CONNECTOR, RECEPTACLE, ELECTRICAL U-121A/U	1,2,3,4,5,6	*	*	2	2
5935-257-6397	CONNECTOR, RECEPTACLE, ELECTRICAL: Type #7410-B; 74545	1,2,3,4,5,6	*	*	2	2
5935-283-1269	JACK, TELEPHONE JJ-034	1,2,3,4,5,6	*	*	*	2
5935-359-6025	CONNECTOR, RECEPTACLE, ELECTRICAL: Type #9210; 74545	1,2,3,4,5,6	*	*	*	2
5935-518-9653	CONNECTOR, PLUG, ELECTRICAL UP-120M	1,2,3,4,5,6	*	*	*	2
5935-549-3562	CONNECTOR, RECEPTACLE, ELECTRICAL: #9200; 74545	1,2,3,4,5,6	*	*	*	2
5935-577-8804	ADAPTER, CONNECTOR UG-1312/U: SM-B-335345; 80063	1,2,3,4,5,6	*	*	*	2

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SECTION II. PRESCRIBED LOAD ALLOWANCE (CONTINUED)

(1) FEDERAL STOCK NUMBER	(2) DESCRIPTION	USABLE ON CODE	(3) 15-DAY ORG. MAINT. ALLOWANCE			
			(a) 1-5	(b) 6-20	(c) 21-50	(d) 51-100
5935-660-4302	CONNECTOR, PLUG, ELECTRICAL UG-573A/U	1,2,3,4,5,6	*	*	2	2
5935-682-1070	CLAMP, ELECTRICAL: SM-B-364420; 09922	1,2,3,4,5,6	*	*	2	2
5935-702-0127	CONNECTOR, RECEPTACLE, ELECTRICAL UG-570/U	1,2,3,4,5,6	*	*	2	2
5940-195-9698	CLIP, SPRING TENSION: #109002; type XX; 75915	1,2,3,4,5,6	2	2	4	8
5940-223-5293	POST, BINDING U-106/U: SC-C-16495; 80063	1,2,3,4,5,6	*	*	2	2
5940-254-2244	CAP, ELECTRICAL: SC-C-76202-1; 80063	1,2,3,4,5,6	*	2	2	3
5940-500-9140	TERMINAL, LUG: #YAU6C-L1; 09922	1,2,3,4,5,6	*	*	2	2
5940-681-9807	TERMINAL, STUD: SM-B-363337; 80063	1,2,3,4,5,6	*	*	*	2
5940-702-7256	TERMINAL, LUG: #KPA25/W mod; 09922	1,2,3,4,5,6	*	*	2	2
5940-802-3771	SPLICE, WIRE, ELECTRICAL: SM-B-370096; 80063	1,2,3,4,5,6	*	2	2	3
5970-681-9896	INSULATOR, BUSHING: SM-B-335557; 80063	1,2,3,4,5,6	*	*	*	2
5975-682-0461	BUSHING, ELECTRICAL CONDUCTOR: 112; 04009	1,2,3,4,5,6	*	*	*	2
5975-702-9311	INSULATOR, CAP: SM-B-364353; 80063	1,2,3,4,5,6	*	2	2	3
5995-681-8470	CORD, ASSEMBLY, ELECTRICAL CX-4695/U: (2 ft) SC-DL-370292; 80063	1,2,3,4,5,6	*	*	2	2
6240-155-7786	LAMP, INCANDESCENT: #PR-2; 24455	1,2,3,4,5,6	*	2	2	3
6240-179-1814	LAMP, GLOW: NE-45; 81349	6	4	13	30	57
6240-223-9104	LAMP, GLOW: NE-40; 81349	1,2,3,4,5,6	2	2	3	6
6240-270-4286	LAMP, GLOW: NE-21; 81349	1,2,3,4,5,6	4	13	30	57
6240-538-8447	LAMP, FLUORESCENT: #F20T12/CW; 24455	1,2,3,4,5,6	2	4	10	18
6250-174-2914	BALLAST, LAMP: 89G457-D; 24455	1	*	*	*	2
6250-174-4684	LAMPHOLDER: #78X736; 24455	1,2,3,4,5,6	*	*	2	2
6250-299-2884	STARTER, FLUORESCENT LAMP: FS-2; 24455	1,2,3,4,5,6	*	*	2	2
6250-299-6093	LAMPHOLDER: #78X491; 24455	1,2,3,4,5,6	*	*	2	2
6250-682-3462	LAMPHOLDER: #50N; 1300 series; 72765	1,2,3,4,5	*	2	2	3
6250-682-3463	LAMPHOLDER: #246; 73586	1,2,3,4,5,6	*	*	*	2
6250-782-9040	LAMPHOLDER: 7-74-18; 72619	1	*	2	2	3
6250-804-3449	BALLAST, LAMP: 89G381; 24455	2,3,4,5,6	*	*	*	2
	LOCKSPRING, TURNLOCK FASTENER: #S5-225; 72794	1,2,3,4,5,6	*	*	2	2

SECTION II. PRESCRIBED LOAD ALLOWANCE (CONTINUED)

(1) FEDERAL STOCK NUMBER	(2) DESCRIPTION	USABLE ON CODE	(3) 15-DAY ORG. MAINT. ALLOWANCE			
			(a) 1-5	(b) 6-20	(c) 21-50	(d) 51-100
	RESISTOR, FIXED, COMPOSITION: RC09GF303J; 81349	1,2,3,4,5,6	*	2	2	3
	STUD, TURNLOCK FASTENER: No. 91S2-6W0; 71286	1,2,3,4,5,6	*	2	2	3

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SECTION III REPAIR PARTS FOR ORGANIZATIONAL MAINTENANCE

(1) SMR CODE INDEX NO.	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION Reference Number & Mfr Code USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 15-DAY ORGANIZATIONAL MAINTENANCE ALLOW				(7) ILLUSTRATIONS	
					(a) 1-5	(b) 6-20	(c) 21-50	(d) 51-100	(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
P-0-R	5820-999-1796	REPEATER SET, RADIO AN/MRC-54(V): (This item is nonexpedientable) SHELTER, ELECTRICAL EQUIPMENT S-117/MRC-54(V), S-117A, B, C, D, E/MRC-54(V) Note: Usable on code 1 refers to S-177/MRC-54(V); 2 refers to S-177A/MRC-54(V); 3 refers to S-177B/MRC-54(V); 4 refers to S-177C/MRC-54(V); 5 refers to S-177D/MRC-54(V); 6 refers to S-177E/MRC-54(V).								
P-0 A049	5935-577-8804	ADAPTER, CONNECTOR UG-1312/U: SM-B-335345; 80063	1,2,3,4,5,6	ea	2	*	*	*	2	6-1
P-0 A050	6625-892-5315	AMMETER: SM-B-364336; 80063	1,2,3,4,5,6	ea	1	*	*	*	*	4-5 ML
P-0 A051	4210-727-8111	AXE, SINGLE BIT: GGG-A-926B, type 1, class 2; 81349	1,2,3,4,5,6	ea	1	*	*	*	*	6-1
P-0 A052	6250-174-2914	BALLAST, LAMP: 896457-D; 24455	1	ea	7	*	*	*	2	4-7
P-0 A053	6250-804-3449	BALLAST, LAMP: 896381; 24455	2,3,4,5,6	ea	7	*	*	*	2	4-7
P-C A057	6645-633-3597	BRACKET: SM-C-200852; 80063	1,2,3,4,5,6	ea	1	*	*	*	*	
P-0 A059	5975-682-0461	BUSHING, ELECTRICAL CONDUCTOR: 112; 04009	1,2,3,4,5,6	ea	2	*	*	*	2	
P-0 A060	5975-688-4625	BUSHING, ELECTRICAL CONDUCTOR: 891; 44094	1	ea	1	*	*	*	*	4-3
P-0 A065	6145-164-6948	CABLE, POWER, ELECTRICAL: HPD: 80660	1	ft	6	*	*	*	*	4-3
P-0 A066	6145-752-2562	CABLE, POWER, ELECTRICAL: S1-5324 type No. 65/.0063; 24455	1,2,3,4,5,6	ft	6	*	*	*	*	4-1
P-0 A067	6145-682-3347	CABLE, POWER, ELECTRICAL: COO2LGF(2/18)0312; 81349	1,2,3,4,5,6	ft	12	*	*	*	*	1-9
P-0 A068	6145-752-2473	CABLE, POWER, ELECTRICAL: SC-A-46608; 80063	1,2,3,4,5,6	ft	100	*	*	*	*	1-8
P-0 A069	6145-161-0887	CABLE, RADIOFREQUENCY RG-8A/U	1,2,3,4,5,6	ft	140	*	*	*	*	6-1
P-0 A070	6145-669-6522	CABLE, TELEPHONE: WF-8/G; 81349	1,2,3,4,5,6	ft	6	*	*	*	*	1-9
P-0 A071	5940-254-2244	CAP, ELECTRICAL: SC-C-76202-1; 80063	1,2,3,4,5,6	ea	12	*	2	2	3	
P-0 A072	5910-553-6096	CAPACITOR, FIXED, PAPER DIELECTRIC: SC-C-33033-4; 80063	1,2,3,4,5,6	ea	7	*	*	2	2	4-7 C1 thru C7
P-0 A073	4010-171-4506	CHAIN, BEAD: SM-B-364346; 80063	1,2,3,4,5,6	ft	4	*	*	*	*	
P-0 A075	5925-818-4811	CIRCUIT BREAKER: SM-B-364359; 80063	1	ea	12	*	2	2	3	4-5 CB1 thru CB12
P-0 A076	5925-818-4811	CIRCUIT BREAKER: SM-B-364359; 80063	2,3,4,5,6	ea	4	*	*	2	2	4-5 CB3, CB4, CB9, CB10
P-0 A077	5925-815-6657	CIRCUIT BREAKER: Type-Q0-1515; 88434	2,3,4,5,6	ea	4	*	*	2	2	4-5 CB2, CB5, CB8, CB11
P-0 A078	5925-682-1071	CIRCUIT BREAKER: SM-B-364358; 80063	1,2,3,4,5,6	ea	1	*	*	*	2	4-5 CB13
P-0 A079	5935-682-1070	CLAMP, ELECTRICAL: SM-B-364420; 09922	1,2,3,4,5,6	ea	3	*	*	2	2	
P-0 A080		CLIP, SPRING TENSION: SM-B-364958; 80063	1,2,3,4,5,6	ea	4	*	*	*	*	1-10
P-0 A081	5340-682-2217	CLIP, SPRING TENSION: SM-B-364923; 80063	1,2,3,4,5,6	ea	4	*	*	*	*	1-10
P-0 A082	5340-727-7646	CLIP, SPRING TENSION: SM-B-363846; 80063	1,2,3,4,5,6	ea	1	*	*	*	*	1-10

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SECTION III REPAIR PARTS FOR ORGANIZATIONAL MAINTENANCE (CONTINUED)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 15-DAY ORGANIZATIONAL MAINTENANCE ALLOW				(7) ILLUSTRATIONS	
					(a) 1-5	(b) 6-20	(c) 21-50	(d) 51-100	(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
		Reference Number & Mfr Code								
P-O A083	5340-682-1826	CLIP, SPRING TENSION: SM-B-335533; 80063	1,2,3,4,5,6	ea	6	*	*	*	2	6-1
P-O A084	5940-195-9698	CLIP, SPRING TENSION: 109002 type XX; 75915	1,2,3,4,5,6	ea	152	2	2	4	8	6-1
P-O-R A085	6645-303-4950	CLOCK, AIRCRAFT, MECHANICAL: SM-B-364789; 80063	1,2,3,4,5,6	ea	1	*	*	*	*	6-1
P-O A086		COMPASS, MAGNETIC: Type #5600-1/2; 33363	1,2,3,4,5,6	ea	1	*	*	*	*	1-9
P-O A087	5935-088-5887	CONNECTOR, PLUG, ELECTRICAL: (male) SC-B-76446-2; 80063	1,2,3,4,5,6	ea	1	*	*	*	*	1-8 P8
P-O A088	5935-149-3054	CONNECTOR, PLUG, ELECTRIC: Type #7101; 74545	1,2,3,4,5,6	ea	1	*	*	*	*	1-9 P9
P-O A089	5935-149-3666	CONNECTOR, PLUG, ELECTRICAL: 7555; 74545	1,2,3,4,5,6	ea	1	*	*	*	*	1-9 P11
P-O A090	5935-429-5511	CONNECTOR, PLUG, ELECTRICAL: 7102; 74545	2,3,4,5,6	ea	1	*	*	*	*	4-1 P1
P-O A091	5935-518-9653	CONNECTOR, PLUG, ELECTRICAL UP-120M	1,2,3,4,5,6	ea	2	*	*	*	2	P7
P-O A092A	5935-660-4302	CONNECTOR, PLUG, ELECTRICAL UG-573A/U	1,2,3,4,5,6	ea	6	*	*	2	2	6-3 P1 thru P6
P-O A093	5935-892-9176	CONNECTOR, PLUG, ELECTRICAL: (female) SC-B-76446-1; 80063	1,2,3,4,5,6	ea	1	*	*	*	*	1-8 P10
P-O A094	5935-257-6374	CONNECTOR, RECEPTACLE, ELECTRICAL U-121A/U	1,2,3,4,5,6	ea	3	*	*	2	2	6-3 J1, J2, J3
P-O A095	5935-257-6397	CONNECTOR, RECEPTACLE, ELECTRICAL: Type #7410-B; 74545	1,2,3,4,5,6	ea	6	*	*	2	2	6-4 J15 thru J20
P-O A096	5935-359-6025	CONNECTOR, RECEPTACLE, ELECTRICAL: Type #9210; 74545	1,2,3,4,5,6	ea	2	*	*	*	2	6-4 J14, J23
P-O A097	5935-537-4253	CONNECTOR, RECEPTACLE, ELECTRICAL: 89-232-2P; 02660	1,2,3,4,5,6	ea	1	*	*	*	*	6-4 J13
P-O A098	5935-549-3562	CONNECTOR, RECEPTACLE, ELECTRICAL: 9200; 74545	1,2,3,4,5,6	ea	2	*	*	*	2	6-4 J24, J25
P-O A099	5935-666-4512	CONNECTOR, RECEPTACLE, ELECTRICAL: 89-232-2S; 02660	1,2,3,4,5,6	ea	1	*	*	*	*	6-4 J12
P-O A100	5935-702-0127	CONNECTOR, RECEPTACLE, ELECTRICAL UG-570/U	1,2,3,4,5,6	ea	6	*	*	2	2	6-3 J4 thru J9
P-O A101	5995-681-8470	CORD, ASSEMBLY, ELECTRICAL CX-4695/U: (2 ft.) SC-DL-370292; 80063	1,2,3,4,5,6	ea	2	*	*	2	2	1-9
P-O A102	4030-805-1068	COUPLING, BEAD CHAIN: SM-B-364347; 80063	1,2,3,4,5,6	ea	2	*	*	*	*	

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SECTION III. REPAIR PARTS FOR ORGANIZATIONAL MAINTENANCE (CONTINUED)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 15-DAY ORGANIZATIONAL MAINTENANCE ALW				(7) ILLUSTRATIONS	
					(a) 1-5	(b) 6-20	(c) 21-50	(d) 51-100	(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
P-O A103	5935-729-0778	COVER, ELECTRICAL CONNECTOR: SM-B-370076; 80063	1,2,3,4,5,6	ea	2	*	*	*	*	
P-O A104	7230-682-2032	CURTAIN: SM-D-464172-GRI; 80063	5	ea	1	*	*	*	*	6-1
P-O A105	7230-682-2045	CURTAIN: SM-D-464172GRII; 80063	5	ea	1	*	*	*	*	6-1
P-O A106	7230-765-2351	CURTAIN, BLACKOUT: SM-D-365465; 80063	1,2,3,4,6	ea	1	*	*	*	*	6-1
P-O A117	5120-293-2692	EXTRACTOR, ELECTRON TUBE: SM-B-364371; 80063	1,2,3,4,5,6	ea	1	*	*	*	*	1-10
P-O A118	5120-752-8862	EXTRACTOR, ELECTRON TUBE: SM-B-364370; 80063	1,2,3,4,5,6	ea	1	*	*	*	*	1-10
P-O A121	4030-267-7024	FASTENER, BRAD CHAIN: SM-B-364618; 80063	1,2,3,4,5,6	ea	3	*	*	*	2	
P-O A126	5120-752-8859	GRIP, CABLE WOVEN: ESR-9; 95344	1,2,3,4,5,6	ea	2	*	*	*	*	1-9
P-O A127	5120-776-9917	GRIP, CABLE WOVEN: SM-B-335430; 80063	1,2,3,4,5,6	ea	5	*	*	*	*	1-9
P-O A128	5120-251-4489	HAMMER, HAND: #15; 75796	1,2,3,4,5,6	ea	1	*	*	*	*	6-1
P-O A129	5975-682-0519	HANGER, CABLE: SM-B-363104; 80063	1,2,3,4,5,6	ea	2	*	*	*	*	1-9
P-O A130	4540-404-9232	HEATING ELEMENT, ELECTRICAL: #3954-E; 72143	2,3,4,5,6	ea	1	*	*	*	*	4-1
P-O A131	5820-706-7185	HEATING ELEMENT, ELECTRICAL: Part #A22/5007/1; 63325	1	ea	1	*	*	*	*	4-3
P-O A134	3895-726-4827	HOLDER, CABLE REEL: SM-B-364288; 80063	1,2,3,4,5,6	ea	1	*	*	*	*	6-1
P-O A135	5820-706-3036	HOOK: SM-B-364049; 80063		ea	2	*	*	*	*	1-10
P-O A136	4140-051-4595	IMPELLER: SM-C-473543-1; 80063	5,6	ea	1	*	*	*	*	
P-O A137	4140-965-1157	IMPELLER: SM-C-373543-2; 80063	5,6	ea	1	*	*	*	*	
P-O A138	4140-765-7748	IMPELLER, FAN, AXIAL: #0U-720-5; 60399	1	ea	1	*	*	*	*	4-3
P-O A139	4520-792-8398	IMPELLER, FAN, AXIAL: #20; 60399	2,3,4,5,6	ea	1	*	*	*	*	4-1
P-O A140	5970-681-9896	INSULATOR, BUSHING: SM-B-3355571; 80063	1,2,3,4,5,6	ea	2	*	*	*	2	
P-O A141	5330-682-4623	INSULATOR, BUSHING: SM-B-335556; 80063	1,2,3,4,5,6	ea	2	*	*	*	2	
P-O A142	5975-702-9311	INSULATOR, CAP: SM-B-364353; 80063	1,2,3,4,5,6	ea	14	*	2	2	3	
P-O A144	5935-283-1269	JACK, TELEPHONE: JJ-034	1,2,3,4,5,6	ea	2	*	*	*	2	6-3 J10, J11
P-O A145	5355-682-6806	KNOB: Type #1600; 72512	1	ea	1	*	*	*	*	4-3
P-O A146	2540-892-6243	LADDER, VEHICLE BOARDING MX-3391/G: SC-DL-108736; 80063	1,2,3,4,5	ea	1	*	*	*	*	
P-O A147	6240-538-8447	LAMP, FLUORESCENT: #F20T12/CW; 24455	1,2,3,4,5,6	ea	7	2	4	10	18	1-11 DS13, DS15 thru DS20
P-O A148	6240-223-9104	LAMP, GLOW: NE-40; 81349	1,2,3,4,5,6	ea	1	2	2	3	6	1-11 DS14
P-O A149	6240-270-4286	LAMP, GLOW: NE-21; 81349	1,2,3,4,5,6	ea	12	4	13	30	57	1-11 DS1 thru DS12
P-O A151	6240-179-1814	LAMP, GLOW: NE-45; 81349	6	ea	12	4	13	30	57	4-5

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SECTION III. REPAIR PARTS FOR ORGANIZATIONAL MAINTENANCE (CONTINUED)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 15-DAY ORGANIZATIONAL MAINTENANCE ALLOW				(7) ILLUSTRATIONS	
					(a) 1-5	(b) 6-20	(c) 21-50	(d) 51-100	(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
P-O A152	6240-155-7786	LAMP, INCANDESCENT: #FR-2; 24455	ea	1	*	2	2	3	1-11 6-4	
P-O A153	6250-174-4684	LAMPHOLDER: #78X736; 24455	ea	7	*	*	2	2	4-7	
P-O A154	6250-299-6093	LAMPHOLDER: #78X491; 24455	ea	7	*	*	2	2	4-7	
P-O A155	6250-682-3463	LAMPHOLDER: #246; 73586	ea	1	*	*	*	2	6-4	XDS-14
P-O A156	6250-682-3462	LAMPHOLDER: #50N; 1300 series; 72765	ea	12	*	2	2	3	4-5	XD1 thru XD12
P-O A157	6250-782-9040	LAMPHOLDER: 7-74-18; 72619	ea	12	*	2	2	3	4-5	XD1 thru XD12
P-O A158	6230-729-9614	LANTERN, ELECTRIC: Model #2106-7; 32572	ea	1	*	*	*	*	6-1	
P-O A159	5410-752-2525	LEAD, ELECTRICAL: SM-B-352166C; 80063	ea	1	*	*	*	*	1-9	
P-O A161	5325-285-3371	LOCKSPRING, TURNLOCK FASTENER: #84-225; 72794	ea	8	*	*	2	2		
P-O A162		LOCKSPRING, TURNLOCK FASTENER: #85-225; 72794	ea	6	*	*	2	2		
P-O A163	5325-290-4345	LOCKSPRING, TURNLOCK FASTENER: SM-B-370529; 80063	ea	10	*	*	2	2		
P-O A164	5325-355-8963	LOCKSPRING, TURNLOCK FASTENER: 84-200; 72794	ea	3	*	*	*	*		
P-O-R A166	6105-560-5739	MOTOR, ALTERNATING CURRENT: 5KSP51AL75; 24455	ea	1	*	*	*	*	4-1	
P-O-R A167	6105-561-6321	MOTOR, ALTERNATING CURRENT: SM-B-363853; 80063	ea	2	*	*	*	*		
P-O-R A168	6105-726-8684	MOTOR, ALTERNATING CURRENT: SM-B-364945; 80063	ea	1	*	*	*	*	4-3	
P-O A170	5940-223-5293	POST, BINDING U-106/U: SC-C-16495; 80063	ea	12	*	*	2	2	6-3	E1A thru E6A, E1B E6B
P-O-R A171	8130-656-1090	REEL, CABLE RC-435/U: SC-DL-69296-G; 80063	ea	1	*	*	*	*	1-8	
P-O A172	5410-783-6250	REPAIR KIT, ELECTRICAL EQUIPMENT SHELTER MK-680/G: F/patching holes in skin of shelter	ea	1	*	*	*	*		
P-O A174	5905-803-2908	RESISTOR, FIXED, COMPOSITION: RC09GF303J; 81349	ea	12	*	2	2	3	6-4	R1 thru R12
P-O A175	5975-224-5260	ROD, GROUND MK-148/G: SC-DL-4158; 80063	ea	1	*	*	*	*	6-1	
P-O A178	6210-686-5568	SHIELD, LIGHT: SM-B-335531; 80063	ea	7	*	*	*	*	4-7	
P-O A180	5940-802-3771	SPLICE, WIRE, ELECTRIC: SM-B-370096; 80063	ea	14	*	2	2	3		
P-O A181	6250-299-2884	STARTER, FLUORESCENT LAMP: FS-2; 24455	ea	7	*	*	2	2	1-11	
P-O A182	5325-290-2890	STUD, SNAP FASTENER: No. 559; 61864	ea	22	*	2	2	3		
P-O A183	5325-290-2898	STUD, TURNLOCK FASTENER: No. AN5-35-U/W105WING; 72794	ea	6	*	*	2	2		
P-O A184		STUD, TURNLOCK FASTENER: No. 9182-6W0; 71286	ea	20	*	2	2	3		
P-O A185	5325-753-3735	STUD, TURNLOCK FASTENER: No. AC-40; 72794	ea	2	*	*	*	*		
P-O A186	5930-705-9131	SWITCH, ROTARY: No. 2800H41; 70611	ea	1	*	*	*	2	4-3	SI

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SECTION III. REPAIR PARTS FOR ORGANIZATIONAL MAINTENANCE (CONTINUED)

(1) SMR CODE INDEX NO.	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION Reference Number & Mfr Code	(4) UNIT OF MEAS USABLE ON CODE	(5) QTY INC IN UNIT	(6) 15-DAY ORGANIZATIONAL MAINTENANCE ALW				(7) ILLUSTRATIONS	
					(a) 1-5	(b) 6-20	(c) 21-50	(d) 51-100	(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
P-O A187	5930-669-7465	SWITCH, SENSITIVE: SM-B-364515; 80063	1,2,3,4,5,6	ea	1	*	*	*	2	6-4 S3
P-O A188	5930-682-0349	SWITCH, THERMOSTATIC: #3381; type G1; Spec 4142; 65595	1	ea	1	*	*	*	2	4-3 S3
P-O A189	5930-707-1313	SWITCH, THERMOSTATIC: Type SM-4; 93410	1	ea	1	*	*	*	2	4-3 S2
P-O A190	5930-734-5202	SWITCH, THERMOSTATIC: #10172H334A1; 17465	2,3,4,5,6	ea	1	*	*	*	2	4-1 S3
P-O A191	5930-504-9923	SWITCH, TOGGLE: #7563K4; 17465	2,3,4,5,6	ea	1	*	*	*	2	4-1 S1
P-O A192	5930-636-4014	SWITCH, TOGGLE: #GE5521-1; 24455	1,2,3,4,5,6	ea	4	*	*	2	2	6-1 S2 thru S5
P-O-R A193	5210-221-1882	TAPE, MEASURING: C-256; 37163	1,2,3,4,5,6	ea	1	*	*	*	*	1-9
P-O A194	5940-500-9140	TERMINAL, LUG: #YAU6C-L1; 09922	1,2,3,4,5,6	ea	3	*	*	2	2	
P-O A195	5940-702-7256	TERMINAL, LUG: #KPA25/W mod; 09922	1,2,3,4,5,6	ea	3	*	*	2	2	
P-O A196	5940-681-9807	TERMINAL, STUD: SM-B-363337; 80063	1,2,3,4,5,6	ea	1	*	*	*	2	6-4 E13
P-O A197	6680-793-9575	THERMOSTAT: #H-2727-A; 65289	2,3,4,5,6	ea	1	*	*	*	*	4-1
P-O A198	5950-892-8224	TRANSFORMER, CURRENT: SM-B-364365; 80063	1,2,3,4,5,6	ea	1	*	*	*	*	4-5 T1
P-O A199	6625-883-4272	VOLTMETER: MR36W150ACVVR; 81349	1,2,3,4,5,6	ea	1	*	*	*	*	4-5 M2
P-O A200	5310-630-0868	WASHER, THRUST: #9LS3-1; 71286		ea	24	2	2	4	7	

SECTION IV REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE

(1) SAR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER EQUIP CRTCG	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
P-O-R A001	5820-399-1796	REPEATER SET, RADIO AN/MRC-54(V): (This item is nonexpendable)												
		SHELTER, ELECTRICAL EQUIPMENT S-177/MRC-54(V), S-177A, B, C, D, E/MRC-54(V)												
		Note: Usable on code 1 refers to S-177/MRC-54(V); 2 refers to S-177A/MRC-54(V); 3 refers to S-177B/MRC-54(V); 4 refers to S-177C/MRC-54(V); 5 refers to S-177D/MRC-54(V); 6 refers to S-177E/MRC-54(V).												
P-O A049	5935-577-8804	ADAPTER, CONNECTOR UG-1312/U; SM-B-335345; 80063	1,2,3,4,5,6	ea	2	2	2	*	2	2	16	8	6-1	
P-O A050	6625-892-5315	AMMETER: SM-B-364336; 80063	1,2,3,4,5,6	ea	1	*	*	2	*	*	*	8	3	4-7 ML
P-O A051	4210-727-8111	AXE, SINGLE BIT: GGG-A-926B, Type 1, Class 2; 81349	1,2,3,4,5,6	ea	1			*	*	*	4	1	6-1	
P-O A052	6250-174-2914	BALLAST, LAMP: 896457-D; 24455	1	ea	7	*	2	2	*	2	2	15	7	4-7
P-O A053	6250-804-3449	BALLAST, LAMP: 896381; 24455	2,3,4,5,6	ea	7	*	2	2	*	2	2	15	7	4-7
P-O A057	6645-633-3597	BRACKET: SM-C-200852; 80063	1,2,3,4,5,6	ea	1	*	*	*	*	*	*	4	1	
P-O A059	5975-682-0461	BUSHING, ELECTRICAL CONDUCTOR: 112; 04009	1,2,3,4,5,6	ea	2	*	2	2	*	2	2	13	6	
P-O A060	5975-688-4625	BUSHING, ELECTRICAL CONDUCTOR: 891; 44094	1	ea	1	*	*	2	*	*	*	8	3	4-3
P-O A065	6145-164-6948	CABLE, POWER, ELECTRICAL: HPD; 80660	1	ft	6	*	*	*	*	*	*	30	60	4-3
P-O A066	6145-752-2562	CABLE, POWER, ELECTRICAL: SL-5324 type No. 65/.0063; 24455	1,2,3,4,5,6	ft	6	*	*	*	*	*	*	30	60	4-1
P-O A067	6145-682-3347	CABLE, POWER, ELECTRICAL: COO2LGF(2/18)0312; 81349	1,2,3,4,5,6	ft	12	*	*	*	*	*	*	60	120	1-9
P-O A068	6145-752-2473	CABLE, POWER, ELECTRICAL: SC-A-46608; 80063	1,2,3,4,5,6	ft	100	*	*	*	*	*	*	500	1000	1-8
P-O A069	6145-161-0887	CABLE, RADIOFREQUENCY RG-8A/U	1,2,3,4,5,6	ft	140	*	*	*	*	*	*	700	1400	6-1
P-O A070	6145-669-6522	CABLE, TELEPHONE: #WF-8/G; 81349	1,2,3,4,5,6	ft	6	*	*	*	*	*	*	30	60	1-9
P-O A071	5940-254-2244	CAP, ELECTRICAL: SC-C-76202-1; 80063		ea	12	2	3	5	2	2	2	59	40	
P-O A072	5910-553-6096	CAPACITOR, FIXED, PAPER DIELECTRIC: SC-C-33033-4; 80063	1,2,3,4,5,6	ea	7	2	2	3	2	2	2	33	20	4-7 C1 thru C7
P-O A073	4010-171-4506	CHAIN, HEAD: SM-B-364346; 80063	1,2,3,4,5,6	ft	4	*	*	*	*	*	*	20	40	
P-O A075	5925-818-4811	CIRCUIT BREAKER: SM-B-364359; 80063	1	ea	12	2	3	6	2	2	2	71	50	4-5 CB1 thru CB12
P-O A076	5925-818-4811	CIRCUIT BREAKER: SM-B-364359; 80063	2,3,4,5,6	ea	4	2	2	3	*	2	2	33	20	4-5 CB3, CB4, CB9, CB10
P-O A077	5925-815-6657	CIRCUIT BREAKER: Type-Q0-1515; 88434	2,3,4,5,6	ea	4	2	2	3	*	2	2	33	20	4-5 CB2, CB5, CB8, CB11
P-O A078	5925-682-1071	CIRCUIT BREAKER: SM-B-364358; 80063	1,2,3,4,5,6	ea	1	*	2	2	*	2	2	12	5	4-5 CB13
P-O A079	5935-682-1070	CLAMP, ELECTRICAL: SM-B-364420; 09922	1,2,3,4,5,6	ea	3	2	2	2	*	2	2	18	9	
P-O A080		CLIP SPRING TENSION: SM-B-364958; 80063	1,2,3,4,5,6	ea	4	*	*	2	*	*	2	10	4	1-10

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SECTION IV REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (CONTINUED)

(1) S&C CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER EQUIP CNTGTY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
P-O A081	5340-682-2217	CLIP, SPRING TENSION: SM-B-364923; 80063	1,2,3,4,5,6	ea	4	*	*	2	*	*	2	10	4	1-10
P-O A082	5340-727-7646	CLIP, SPRING TENSION: SM-B-363846; 80063	1,2,3,4,5,6	ea	1	*	*	*	*	*	*	4	1	1-10
P-O A083	5340-682-1826	CLIP, SPRING TENSION: SM-B-335533; 80063	1,2,3,4,5,6	ea	6	*	2	2	*	2	2	13	6	6-1
P-O A084	5940-195-9698	CLIP, SPRING TENSION: 109002 Type XX; 75915	1,2,3,4,5,6	ea	152	3	9	16	2	3	4	187	150	6-1
P-O-R A085	6645-303-4950	CLOCK, AIRCRAFT, MECHANICAL: SM-B-364789; 80063	1,2,3,4,5,6	ea	1	*	*	*	*	*	*	4	1	6-1
P-O A086		COMPASS, MAGNETIC: Type #5600-1/2; 33363	1,2,3,4,5,6	ea	1	*	*	*	*	*	*	4	1	1-9
P-O A087	5935-088-5887	CONNECTOR, PLUG, ELECTRICAL: (Male) SC-B-76446-2; 80063	1,2,3,4,5,6	ea	1	*	*	2	*	*	*	8	3	1-8 P8
P-O A088	5935-149-3054	CONNECTOR, PLUG, ELECTRICAL: Type #7101; 74545	1,2,3,4,5,6	ea	1	*	*	2	*	*	*	8	3	1-9 P9
P-O A089	5935-149-3666	CONNECTOR, PLUG, ELECTRICAL: 7555; 74545	1,2,3,4,5,6	ea	1	*	*	2	*	*	*	8	3	1-9 P11
P-O A090	5935-429-5511	CONNECTOR, PLUG, ELECTRICAL: 7102; 74545	2,3,4,5,6	ea	1	*	*	2	*	*	*	8	3	4-1 P1
P-O A091	5935-518-9653	CONNECTOR, PLUG, ELECTRICAL UP-120M	1,2,3,4,5,6	ea	2	*	2	2	*	2	2	13	6	P7
P-F A092	5935-577-0302	CONNECTOR, PLUG, ELECTRICAL U-176/G	1,2,3,4,5,6	ea	4	2	2	2	*	2	2	19	10	P12 thru P15
P-O A092A	5935-660-4302	CONNECTOR, PLUG, ELECTRICAL UG-573A/U	1,2,3,4,5,6	ea	6	2	2	3	2	2	2	33	20	6-3 P1 thru P6
P-O A093	5935-892-9176	CONNECTOR, PLUG, ELECTRICAL: (Female) SC-B-76446-1; 80063	1,2,3,4,5,6	ea	1	*	*	2	*	*	*	8	3	1-8 P10
P-O A094	5935-257-6374	CONNECTOR, RECEPTACLE, ELECTRICAL U-121A/U	1,2,3,4,5,6	ea		2	2	2	*	2	2	18	9	6-3 J1, J2, J3
P-O A095	5935-257-6397	CONNECTOR, RECEPTACLE, ELECTRICAL: Type #7410-B; 74545	1,2,3,4,5,6	ea	6	2	2	3	2	2	2	33	20	6-4 J15 thru J20
P-O A096	5935-359-6025	CONNECTOR, RECEPTACLE, ELECTRICAL: Type #9210; 74545	1,2,3,4,5,6	ea	2	*	2	2	*	2	2	13	6	6-4 J14, J23
P-O A097	5935-537-4253	CONNECTOR, RECEPTACLE, ELECTRICAL: 89-232-2P; 02660	1,2,3,4,5,6	ea	1	*	*	2	*	*	*	8	3	6-4 J13
P-O A098	5935-549-3562	CONNECTOR, RECEPTACLE, ELECTRICAL: 9200; 74545	1,2,3,4,5,6	ea	2	*	2	2	*	2	2	13	6	6-4 J24, J25
P-O A099	5935-666-4512	CONNECTOR, RECEPTACLE, ELECTRICAL: 89-232-2S; 02660	1,2,3,4,5,6	ea	1	*	*	2	*	*	*	8	3	6-4 J12
P-O A100	5935-702-0127	CONNECTOR, RECEPTACLE, ELECTRICAL UG-570/U	1,2,3,4,5,6	ea	6	2	2	3	2	2	2	33	20	6-3 J4 thru J9
P-O A101	5995-681-8470	CORD, ASSEMBLY, ELECTRICAL CX-4695/U: (2 ft.) SC-DL-370292; 80063	1,2,3,4,5,6	ea	2	2	2	2	*	2	2	19	10	1-9
P-O A102	4030-805-1068	COUPLING, BEAD CHAIN: SM-B-364347; 80063	1,2,3,4,5,6	ea	2	*	*	2	*	*	2	10	4	

SECTION IV. REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (CONTINUED)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION		(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER EQUIP CNTGTY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
						(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
P-O A103	5935-729-0778	COVER, ELECTRICAL CONNECTOR: SM-B-370076; 80063	1,2,3,4,5,6	ea	2	*	*	*	*	*	*	4	1		
P-O A104	7230-682-2032	CURTAIN: SM-D-464172-GRI; 80063	5	ea	1	*	*	*	*	*	*	1	1	6-1	
P-O A105	7230-682-2045	CURTAIN: SM-D-464172-GRII; 80063	5	ea	1	*	*	*	*	*	*	1	1	6-1	
P-O A106	7230-765-2361	CURTAIN, BLACKOUT: SM-D-365465; 80063	1,2,3,4,6	ea	1	*	*	*	*	*	*	1	1	6-1	
P-F A108	5820-682-1465	DOOR ASSEMBLY: SM-D-464149; 80063	6	ea	1	*	*	*	*	*	*	1	1	1-3	
P-F A109	5820-706-3035	DOOR ASSEMBLY: SM-B-363530; 80063	1,2,3,4,5,6	ea	2	*	*	*	*	*	*	2	2		
P-F A110	5820-706-3037	DOOR ASSEMBLY: SM-C-364364; 80063	1,2,3,4,5,6	ea	1	*	*	*	*	*	*	2	2		
P-F A111	5820-706-3044	DOOR ASSEMBLY: SM-C-364404; 80063	1,2,3,4,5	ea	1	*	*	*	*	*	*	2	1	1-3	
P-O A112	5120-293-2692	EXTRACTOR, ELECTRON TUBE: SM-B-364371; 80063	1,2,3,4,5,6	ea	1	*	*	*	*	*	*	4	1	1-10	
P-O A113	5120-752-8862	EXTRACTOR, ELECTRON TUBE: SM-B-364370; 80063	1,2,3,4,5,6	ea	1	*	*	*	*	*	*	4	1	1-10	
P-O A121	4030-267-7024	FASTENER, BEAD CHAIN: SM-B-364618; 80063	1,2,3,4,5,6	ea	3	*	2	2	*	2	2	13	6		
P-F A124	5820-706-3045	GASKET: SM-B-335615; 80063	1,2,3,4,5,6	ft	6	*	*	*	*	*	*	30	60		
P-F A125	5820-706-3046	GASKET: SM-B-363391; 80063	1,2,3,4,5,6	ft	2	*	*	*	*	*	*	10	20		
P-O A126	5120-752-8859	GRIP, CABLE WOVEN: ESR-9; 95344	1,2,3,4,5,6	ea	2	*	*	*	*	*	*	5	2	1-9	
P-O A127	5120-776-9917	GRIP, CABLE WOVEN: SM-B-335430; 80063	1,2,3,4,5,6	ea	5	*	*	*	*	*	*	4	1	1-9	
P-O A128	5120-251-4489	HAMMER, HAND: #15; 79796	1,2,3,4,5,6	ea	1	*	*	*	*	*	*	4	1	6-1	
P-O A129	5975-682-0519	HANGER, CABLE: SM-B-363104; 80063	1,2,3,4,5,6	ea	2	*	*	*	*	*	*	5	2	1-9	
P-O A130	4540-404-9232	HEATING ELEMENT ELECTRICAL: #3954-E; 72143	1,2,3,4,5,6	ea	1	*	*	2	*	*	*	3	3	4-1	
P-O A131	5820-706-7185	HEATING ELEMENT, ELECTRICAL: Part #A22/5007/1; 63325	1	ea	1	*	*	2	*	*	*	3	3	4-3	
P-O A134	3895-726-4827	HOLDER, CABLE REEL: SM-B-364288; 80063	1,2,3,4,5,6	ea	1	*	*	*	*	*	*	4	1	6-1	
P-O A135	5820-706-3036	HOOK: SM-B-364049; 80063		ea	2	*	*	*	*	*	*	5	2	1-10	
P-O A136	4140-965-1157	IMPELLER: SM-C-473543-1; 80063	5	ea	1	*	*	*	*	*	*	4	1		
P-O A137	4140-965-1157	IMPELLER: SM-C-373543-2; 80063	5	ea	1	*	*	*	*	*	*	4	1		
P-O A138	4140-765-7748	IMPELLER, FAN, AXIAL: #OU-720-5; 60399	1	ea	1	*	*	*	*	*	*	4	1	4-3	
P-O A139	4520-792-8398	IMPELLER, FAN, AXIAL: #20; 60399	2,3,4,5,6	ea	1	*	*	*	*	*	*	4	1	4-1	
P-O A140	5970-681-9896	INSULATOR, BUSHING: SM-B-335557; 80063	1,2,3,4,5,6	ea	2	*	2	2	*	2	2	13	6		
P-O A141	5330-682-4623	INSULATOR, BUSHING: SM-B-335556; 80063	1,2,3,4,5,6	ea	2	*	2	2	*	2	2	13	6		
P-O A142	5975-702-9311	INSULATOR, CAP: SM-B-364353; 80063	1,2,3,4,5,6	ea	14	2	3	5	2	2	2	59	40		
P-O A144	5935-283-1269	JACK, TELEPHONE JJ-034	1,2,3,4,5,6	ea	2	*	2	2	*	2	2	13	6	6-5	J10, J11

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SECTION IV. REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (CONTINUED)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION		(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER EQUIP CNTGTY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
		REFERENCE NUMBER & MFR. CODE	USABLE ON CODE			(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
P-O A145	5355-682-6806	KNOB: Type #1600; 72512	1	ea	1	*	*	2	*	*	*	8	3	4-3	
P-O A146	2540-892-6243	LADDER, VEHICLE BOARDING MX-3391/G; SC-DL-108736;	1,2,3,4,5,6	ea	1	*	*	*	*	*	*	4	1		
P-O A147	6240-538-8447	LAMP, FLUORESCENT: #F20T12/CW; 24455	1,2,3,4,5,6	ea	7	7	18	33	5	7	8	406	350	1-11	DS13, DS15 thru DS20
P-O A148	6240-223-9104	LAMP, GLOW: NE-40; 81349	1,2,3,4,5,6	ea	1	2	6	11	2	2	3	130	100	1-11	DS14
P-O A149	6240-270-4286	LAMP, GLOW: NE-21; 81349	1,2,3,4,5,6	ea	12	24	57	104	14	21	27	1302	1200	1-11 4-5	DS1 thru DS12
P-O A151	6240-179-1814	LAMP, GLOW: NE-45; 81349	6	ea	12	24	57	104	14	21	27	1302	1200	4-5	
P-O A152	6240-155-7786	LAMP, INCANDESCENT: #PR-2; 24455	1,2,3,4,5,6	ea	1	2	3	6	2	2	2	71	50	1-11 6-4	
P-O A153	6250-174-4684	LAMPHOLDER: #78X736; 24455	1,2,3,4,5,6	ea	7	2	3	4	2	2	2	46	30	4-7	
P-O A154	6250-299-6093	LAMPHOLDER: #78X491; 24455	1,2,3,4,5,6	ea	7	2	3	4	2	2	2	46	30	4-7	
P-O A155	6250-682-3463	LAMPHOLDER: #246; 73586	1,2,3,4,5,6	ea	1	*	2	2	*	2	2	12	5	6-4	XDS-14
P-O A156	6250-682-3462	LAMPHOLDER: #50N; 1300 series; 72765	1,2,3,4,5,6	ea	12	2	3	6	2	2	2	71	50	4-5	XD1 thru XD12
P-O A157	6250-782-9040	LAMPHOLDER: 7-74-18; 72619	6	ea	12	2	3	6	2	2	2	71	50	4-5	XD1 thru XD12
P-O A158	6230-729-9614	LANTERN, ELECTRIC: Model #2106-7; 32572	1,2,3,4,5,6	ea	1	*	*	*				4	1	6-1	
P-O A159	5410-752-2525	LEAD, ELECTRICAL: SM-B-3521660; 80063	1,2,3,4,5,6	ea	1	*	*	*				5	2	1-9	
P-O A161	5325-285-3371	LOCKSPRING, TURNLOCK FASTENER: #S4-225; 72794	1,2,3,4,5,6	ea	8	2	2	3	2	2	2	40	25		
P-O A162		LOCKSPRING, TURNLOCK FASTENER: #S5-225; 72794	1,2,3,4,5,6	ea	6	2	2	3	2	2	2	33	20		
P-O A163	5325-290-4345	LOCKSPRING, TURNLOCK FASTENER: SM-B-370529; 80063	1,2,3,4,5,6	ea	10	2	3	4	2	2	2	46	30		
P-O A164	5325-355-8963	LOCKSPRING, TURNLOCK FASTENER: S4-200; 72794	5	ea	3	*	*	2	*	*	*	8	3		
P-H A165	5410-973-3936	MAINTENANCE KIT, ELECTRICAL EQUIPMENT SHELTER MK-679/G	1,2,3,4,5,6	ea	1				*	*	*	5	2		
P-O-R A166	6105-560-5739	MOTOR, ALTERNATING CURRENT: 5KSP51AL74; 24455	2,3,4,5,6	ea	1	*	*	*	*	*	*	5	2	4-1	
P-O-R A167	6105-561-6321	MOTOR, ALTERNATING CURRENT: SM-B-363853; 80063	1,2,3,4,5,6	ea	2	*	*	2	*	*	2	10	4		
P-O-R A168	6105-726-8684	MOTOR, ALTERNATING CURRENT: SM-B-364945; 80063	1	ea	1	*	*	*				5	2	4-3	
P-O A170	5940-223-5293	POST, BINDING U-106/U: SC-C-16495; 80063	1,2,3,4,5,6	ea	12	2	2	2	*	2	2	19	10	6-3	E1A thru E6A E1B thru E6B
P-O-R A171	8130-656-1090	REEL, CABLE RC-435/U: SC-DL-69296-G; 80063	1,2,3,4,5,6	ea	1	*	*	*	*	*	*	4	1	1-8	
		NOTE: Item to be requisitioned for immediate use only, order direct from depot stock													
P-F A173	5410-771-3354	REPAIR KIT, ELECTRICAL EQUIPMENT SHELTER MK-681/G	1,2,3,4,5,6	ea	*	*	*	*	*	*	*	*			
P-O A174	5905-803-2908	RESISTOR, FIXED, COMPOSITION: RC09GF303J; 81349	1,2,3,4,5,6	ea	12	2	3	5	2	2	2	59	40	6-4	R1 thru R12
P-O A175	5975-224-5260	ROD, GROUND MX-148/G: SC-DL-4158; 80063	1,2,3,4,5,6	ea	1	*	*	*	*	*	*	4	1	6-1	

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SECTION IV. REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (CONTINUED)

(1) SWR CODE INDEX NO.	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE		(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER EQUIP CNTGCT	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
						(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
P-O A178	6210-686-5568	SHIELD, LIGHT: SM-B-335531; 80063	1,2,3,4,5,6	ea	7	*	*	*	*	*	*	4	1	4-7	
P-O A180	5940-802-3771	SPLICE, WIRE, ELECTRICAL: SM-B-370096; 80063	1,2,3,4,5,6	ea	14	2	3	5	2	2	2	59	40		
P-O A181	6250-299-2884	STARTER, FLUORESCENT LAMP: FS-2; 24455	1,2,3,4,5,6	ea	7	2	2	3	2	2	2	33	20	1-11	
P-O A182	5325-290-2890	STUD, SNAP FASTENER: No. 559; 61864	1,2,3,4,5,6	ea	22	2	3	5	2	2	2	59	40		
P-O A183	5325-290-2898	STUD, TURNLOCK FASTENER: No. AN5-35-U/WX105Wing; 72794	1,2,3,4,5,6	ea	6	2	2	2	*	2	2	19	10		
P-O A184		STUD, TURNLOCK FASTENER: No. 9182-6W0; 71286	1,2,3,4,5,6	ea	20	2	3	5	2	2	2	59	40		
P-O A185	5325-753-3735	STUD, TURNLOCK FASTENER: No. AC-40; 72794	1,2,3,4,5,6	ea	2	*	*	2	*	*	2	10	4		
P-O A186	5930-705-9131	SWITCH, ROTARY: No. 2800H41; 70611	1	ea	1	*	2	2	*	2	2	12	5	4-3	S1
P-O A187	5930-669-7465	SWITCH, SENSITIVE: SM-B-364515; 80063	1,2,3,4,5,6	ea	1	*	2	2	*	2	2	12	5	6-4	S3
P-O A188	5930-682-0349	SWITCH, THERMOSTATIC: #3381; type G1; Spec 4142; 65595	1	ea	1	*	2	2	*	2	2	12	5	4-3	S3
P-O A189	5930-707-1313	SWITCH, THERMOSTATIC: Type SM-4; 93410	1	ea	1	*	2	2	*	2	2	12	5	4-3	S2
P-O A190	5930-734-5202	SWITCH, THERMOSTATIC: #10172H334A1; 17465	2,3,4,5,6	ea	1	*	2	2	*	2	2	12	5	4-1	S3
P-O A191	5930-504-9923	SWITCH, TOGGLE: #7563K4; 17465	2,3,4,5,6	ea	1	*	2	2	*	2	2	12	5	4-1	S1
P-O A192	5930-636-4014	SWITCH, TOGGLE: #GE5521-1; 24455	1,2,3,4,5,6	ea	4	2	2	3	2	2	2	33	20	6-1	S2 thru S5
P-O-R A193	5210-221-1882	TAPE, MEASURING: C-256; 37163	1,2,3,4,5,6	ea	1	*	*	*	*	*	*	4	1	1-9	
P-O A194	5940-500-9140	TERMINAL, LUG: #YAU6C-L1; 09922	1,2,3,4,5,6	ea	3	2	2	2	2	2	2	27	15		
P-O A195	5940-702-7256	TERMINAL, LUG: #KPA25/W mod; 09922	1,2,3,4,5,6	ea	3	2	2	2	2	2	2	27	15		
P-O A196	5940-681-9807	TERMINAL, STUD: SM-B-363337; 80063	1,2,3,4,5,6	ea	1	*	2	2	*	2	2	12	5	6-4	E13
P-O A197	6680-793-9575	THERMOSTAT: #H-2727-A; 65289	2,3,4,5,6	ea	1	*	*	*	*	*	*	5	2	4-1	
P-O A198	5950-892-8224	TRANSFORMER, CURRENT: SM-B-364365; 80063	1,2,3,4,5,6	ea	1	*	*	2	*	*	*	8	3	4-5	T1
P-O A199	6625-883-4272	VOLTMETER: MR36W150ACVVR; 61349	1,2,3,4,5,6	ea	1	*	*	2	*	*	2	10	4	4-5	M2
P-O A200	5310-630-0868	WASHER, THRUST: #9183-1; 71286	1,2,3,4,5,6	ea	24	3	7	13	2	3	3	158	125		

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SECTION V. INDEX-FEDERAL STOCK NUMBER CROSS REFERENCE TO INDEX NUMBER

FEDERAL STOCK NUMBER	INDEX NO.	FEDERAL STOCK NUMBER	INDEX NO.	FEDERAL STOCK NUMBER	INDEX NO.
2540-892-6243	A146	5820-542-7297	A001	5935-666-4512	A099
3895-726-4827	A134	5820-682-1465	A108	5935-682-1070	A079
4010-171-4506	A073	5820-706-3035	A109	5935-702-0127	A100
4030-267-7024	A121	5820-607-3036	A135	5935-729-0778	A103
4030-805-1068	A102	5820-706-3037	A110	5935-892-9176	A093
4140-051-4595	A136	5820-706-3044	A111		
4140-765-7748	A138	5820-706-3045	A124	5940-195-9698	A084
4140-965-1157	A137	5820-706-3046	A125	5940-223-5293	A170
4210-727-8111	A051	5820-706-7185	A131	5940-254-2244	A071
4520-792-8398	A139	5830-752-5357	A143	5940-500-9140	A194
4540-404-9232	A130	5905-803-2908	A174	5940-681-9807	A196
5120-251-4489	A128	5910-553-6096	A072	5940-702-7256	A195
5120-293-2692	A117	5925-682-1071	A078	5940-802-3771	A180
5120-752-8859	A126	5925-815-6657	A077	5950-892-8224	A198
5120-752-8862	A118	5925-818-4811	A075	5970-681-9896	A140
5120-776-9917	A127	5930-504-9923	A191	5975-224-5260	A175
5210-221-1882	A193	5930-636-4014	A192	5975-682-0461	A059
5310-630-0868	A200	5930-669-7465	A187	5975-682-0519	A129
5325-285-3371	A161	5930-682-0349	A188	5975-688-4625	A060
		5930-705-9131	A186	5975-702-9311	A142
		5930-707-1313	A189	5995-681-8470	A101
5325-290-2890	A182	5930-734-5202	A190	6105-560-5739	A166
5325-290-2898	A183	5935-088-5887	A087	6105-561-6321	A167
5325-290-4345	A163	5935-149-3054	A088	6105-726-8684	A168
5325-355-8963	A164	5935-149-3666	A089	6145-161-0887	A069
		5935-257-6374	A094	6145-164-6948	A065
5325-753-3735	A185	5935-257-6397	A095	6145-869-6522	A070
5330-682-4623	A141	5935-283-1269	A144	6145-682-3347	A067
5340-682-1826	A083	5935-359-6025	A096	6145-752-2473	A068
5340-682-2217	A081	5935-429-5511	A090	6145-752-2562	A066
5340-727-7646	A082	5935-518-9653	A091	6210-686-5568	A178
5410-647-0118	A006	5935-537-4253	A097	6230-615-5384	A160
5410-752-2525	A159	5935-549-3562	A098	6230-729-9614	A158
5410-771-3354	A173	5935-577-0302	A092	6240-143-3070	A150
5410-783-6250	A172	5935-577-8804	A049	6240-155-7786	A152
5410-973-2936	A165	5935-660-4302	A092	6240-179-1814	A151

SECTION V. INDEX-FEDERAL STOCK NUMBER CROSS REFERENCE
TO INDEX NUMBER (CONTINUED)

FEDERAL STOCK NUMBER	INDEX NO.	FEDERAL STOCK NUMBER	INDEX NO.	FEDERAL STOCK NUMBER	INDEX NO.
6240-223-9104	A148				
6240-270-4286	A149				
6240-538-8447	A147				
6250-174-2914	A052				
6250-174-4684	A153				
6250-299-2884	A181				
6250-299-6093	A154				
6250-682-3462	A156				
6250-682-3463	A155				
6250-782-9040	A157				
6250-804-3449	A053				
6625-883-4272	A199				
6625-892-5315	A050				
6645-303-4950	A085				
6645-633-3597	A057				
6680-793-9575	A197				
7230-682-2032	A104				
7230-682-2045	A105				
7230-765-2351	A106				
7520-162-6178	A177				
8130-656-1090	A171				
<u>REF. NO.</u>	<u>INDEX NO.</u>				
SM-B-364958	A080				
S5-225	A162				
91S2-6W0	A184				

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SECTION VI. INDEX-FIGURE AND ITEM NUMBER CROSS REFERENCE TO INDEX NUMBER

FIG. NO.	ITEM NO. OR REFERENCE DESIGNATION	INDEX NO.	FIG. NO.	ITEM NO. OR REFERENCE DESIGNATION	INDEX NO.
1-8	P8 P10	A087 A093		P3 P4 P5 P6 P1--1,2,3,4,5,6	A092A A092A A092A A092A A092A
1-9	P9 P11	A088 A089			
1-11	DS13 DS14	A147 A148	6-4	E13 J12 J13 J14 J15 thru J20 J23 J24, J25 R1 thru R12 S3--1,2,3,4,5,6 XDS-14	A196 A099 A097 A096 A095 A096 A098 A174 A187 A155
1-11 4-5	DS1 thru DS12	A149			
4-1	P1--2,3,4,5,6 S1 S3--2,3,4,5,6	A090 A191 A190			
4-3	S1 S2 S3-1	A186 A189 A188			
4-5	CB1 CB2--1 CB2--2,3,4,5,6 CB3--1 CB3--2,3,4,5,6 CB4--1 CB4--2,3,4,5,6 CB5--1 CB5--2,3,4,5,6 CB6 CB7 CB8--1 CB8--2,3,4,5,6 CB9--1 CB9--2,3,4,5,6 CB10--1 CB10--2,3,4,5,6 CB11--1 CB11--2,3,4,5,6 CB12 CB13 M1 M2 T1 XD1 thru XD12--1,2,3,4,5,6 XD1 thru XD12--6	A075 A075 A077 A075 A076 A075 A076 A075 A077 A075 A077 A075 A076 A075 A076 A075 A077 A075 A078 A050 A199 A198 A156			
4-7	C1 thru C7	A172			
6-1	S2 S3 S4 S5	A192 A192 A192 A192			
6-3	E1A thru E6A E1B thru E6B J1,J2,J3 J4 thru J9 J10,J11 F2	A170 A170 A094 A100 A144 A092A			

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SECTION VII. INDEX-REFERENCE DESIGNATION CROSS REFERENCE TO INDEX NUMBER

REFERENCE DESIGNATION	INDEX NO.	REFERENCE DESIGNATION	INDEX NO.	REFERENCE DESIGNATION	INDEX NO.
C1 thru C7	A072	J4 thru J9	A100	S3--1,2,3,4,5,6	A187
CB1	A075	J10,J11	A144	S4	A192
CB2--1	A075	J12	A099	S5	A192
CB2--2,3,4,5,6	A077	J13	A097	T1	A198
CB3--1	A075	J14	A096	XD1 thru	A156
CB3--2,3,4,5,6	A076	J15 thru J20	A095	XD12--1,2,3,4,5	
CB4--1	A075	J23	A096	XD1 thru XD12--6	A157
CB4--2,3,4,5,6	A076	J24,J25	A098	XDS-14	A155
CB5--1	A075	M1	A050		
CB5--2,3,4,5,6	A077	M2	A199		
CB6	A075	P2	A092A		
CB7	A075	P3	A092A		
CB8--1	A075	P4	A092A		
CB8--2,3,4,5,6	A077	P5	A092A		
CB9--1	A075	P6	A092A		
CB9--2,3,4,5,6	A076	P1--2,3,4,5,6	A090		
CB10--1	A075	P1--1,2,3,4,5,6	A092A		
CB10--2,3,4,5,6	A076	P7	A091		
CB11--1	A075	P8	A087		
CB11--2,3,4,5,6	A077	P9	A088		
CB12	A075	P10	A093		
CB13	A078	P11	A089		
DS1 thru DS12	A149	P12 thru P15	A092		
DS13	A147	R1 thru R12	A174		
DS14	A148	S1	A191		
DS15 thru DS20	A147	SI	A186		
E1A thru E6A	A170	S2	A189		
E1B thru E6B	A170	S2	A192		
E13	A196	S3--2,3,4,5,6	A190		
J1,J2,J3	A094	S3	A192		
		S3--1	A188		

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Next printed page is 99.

By Order of the Secretary of the Army:

HAROLD K. JOHNSON,
General, United States Army,
Chief of Staff.

Official:

J. C. LAMBERT,
Major General, United States Army,
The Adjutant General.

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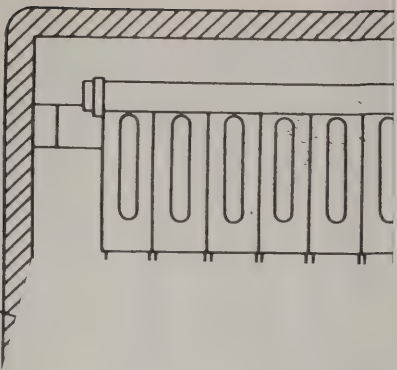
Active Army:

USASA (2)	Instl (2) except Ft Monmouth (70)
CNGB (1)	Ft Hancock (4) Ft Gordon (10)
OCC-E (7)	Ft Huachuca (10) WSMR (5) Ft Carson (25)
Dir of Trans (1)	Army Dep (2) except LBAD, TOAD (14)
CofEngrs (1)	SAAD (30) FTWOAD (10) LEAD, NAAD,
TSG (1)	SVAD (5) ATAD (4) SHAD, CHAD (3)
CofSptS (1)	GENDEP (2)
USACDCCEA (1)	Sig Sec, GENDEP (5)
USACDCCEA, Ft Monmouth (1)	Sig Dep (12)
USACDCCBRA (1)	Army Tml (1) except OART (5)
USACDCOA (1)	Sig Fld Maint Shops (2)
USACDCQMA (1)	AMS (1)
USACDCTA (1)	USAERDAA (2)
USACDCADA (1)	USAERDAW (13)
USACDCARMA (1)	Units org under fol TOE: (2 each UNOINDC)
USACDCAVNA (1)	7
USACDCARTYA (1)	11-5
USACDCSWA (1)	11-6
USAMC (5)	11-15
USCONARC (5)	11-16
ARADCOM (5)	11-18
ARADCOM Rgn (2)	11-35
OS Maj Comd (4) except USASETAF (5)	11-36
LOGCOMD (2)	11-55
MDW (1)	11-56
Armies (2)	11-57
Corps (2)	11-85
USAC (3)	11-86
USAMICOM (4)	11-87
USASMC (2)	11-95
USASCC (4)	11-97
USA Tml Comd (1)	11-98
11th Air Assault Div (3)	11-117
Svc Colleges (2)	11-155
Br Svc Sch (2)	11-157
USASCS	11-337
USATC AD (2)	11-500 AA-AE (4)
USATC Armor (2)	11-587
USATC Engr (2)	11-592
USATC Inf (2)	11-597
USASTC (2)	17
WRAMC (1)	37
USA Pic Cen (2)	

NG: State AG (3) Units same as active Army except allowance is one copy each unit.

USAR: None.

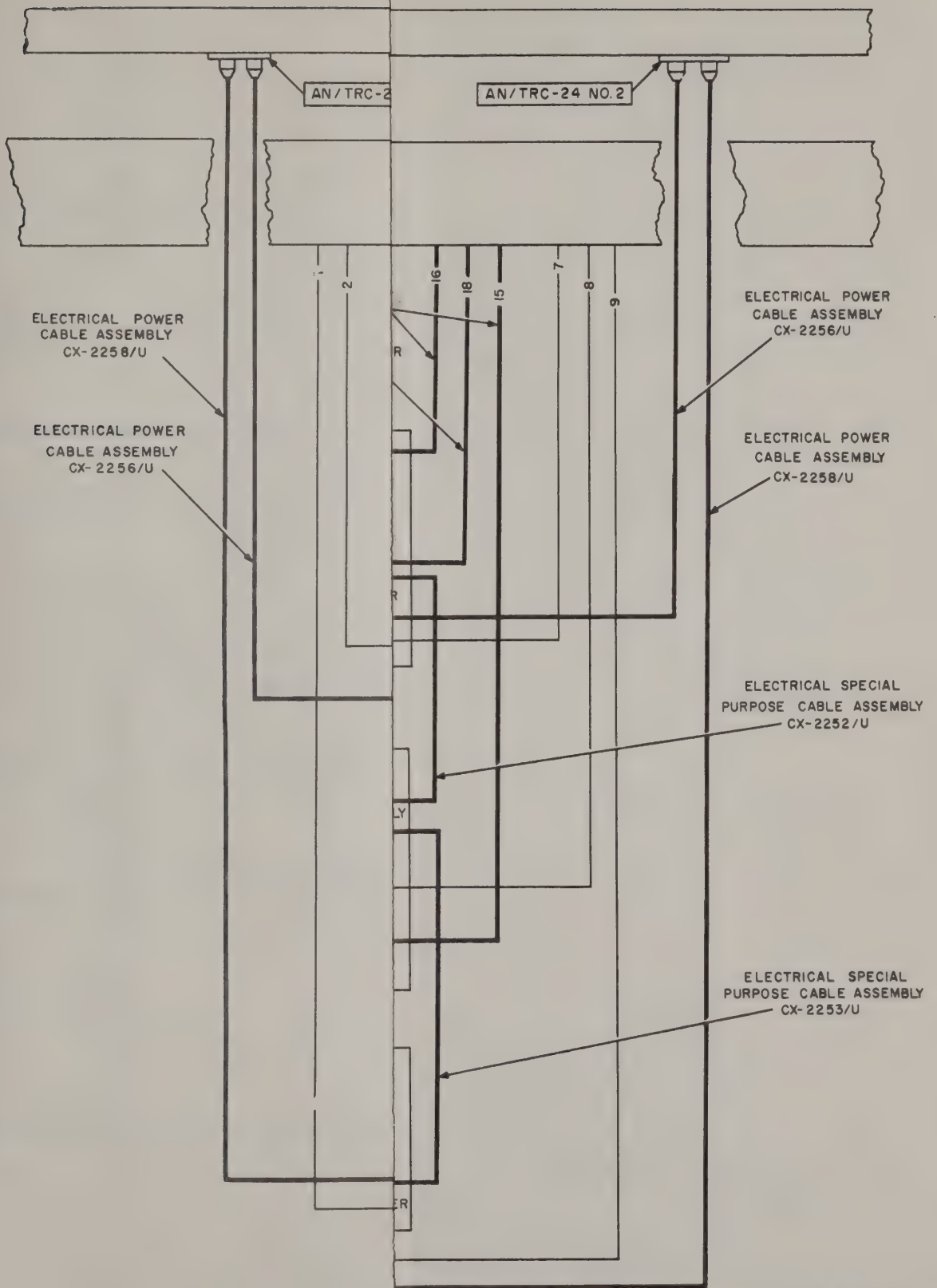
For explanation of abbreviations used, see AR 320-50.



MAST SECTIONS
AB-332/G

The diagram shows a cross-section of a mast assembly. On the left, a hatched area represents a wall or structure. A horizontal mast section, labeled 'MAST SECTIONS AB-332/G', is shown extending from this wall. The mast section has a series of vertical slots or openings along its length. To the right of the mast section, there is a component labeled 'ANTENNA REFLECTOR SUPPORT AB-325/TRC'. This component is shown in a perspective view, with a series of vertical slots or openings along its length. The entire assembly is shown in a technical drawing style with hatching and dimension lines.

ANTENNA
REFLECTOR SUPPORT
AB-325/TRC



TM 5820-203-14-14

6-2. AN/MRC-54(V), cabling diagram.

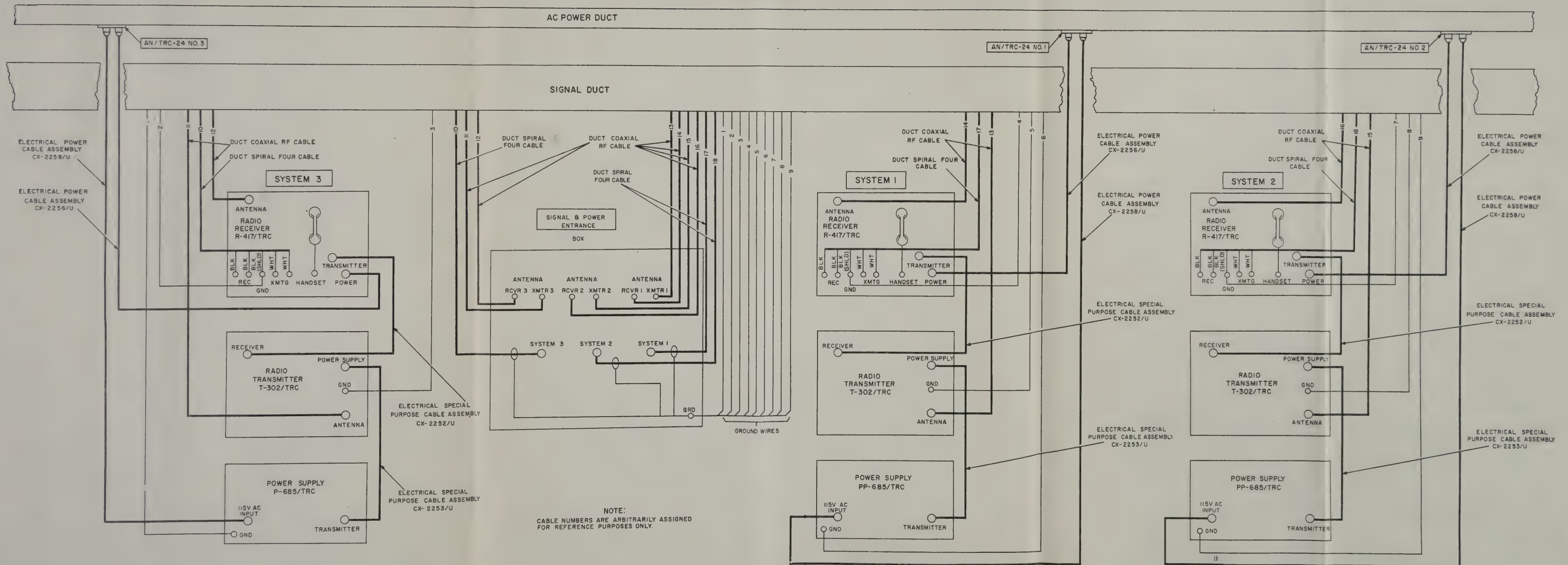
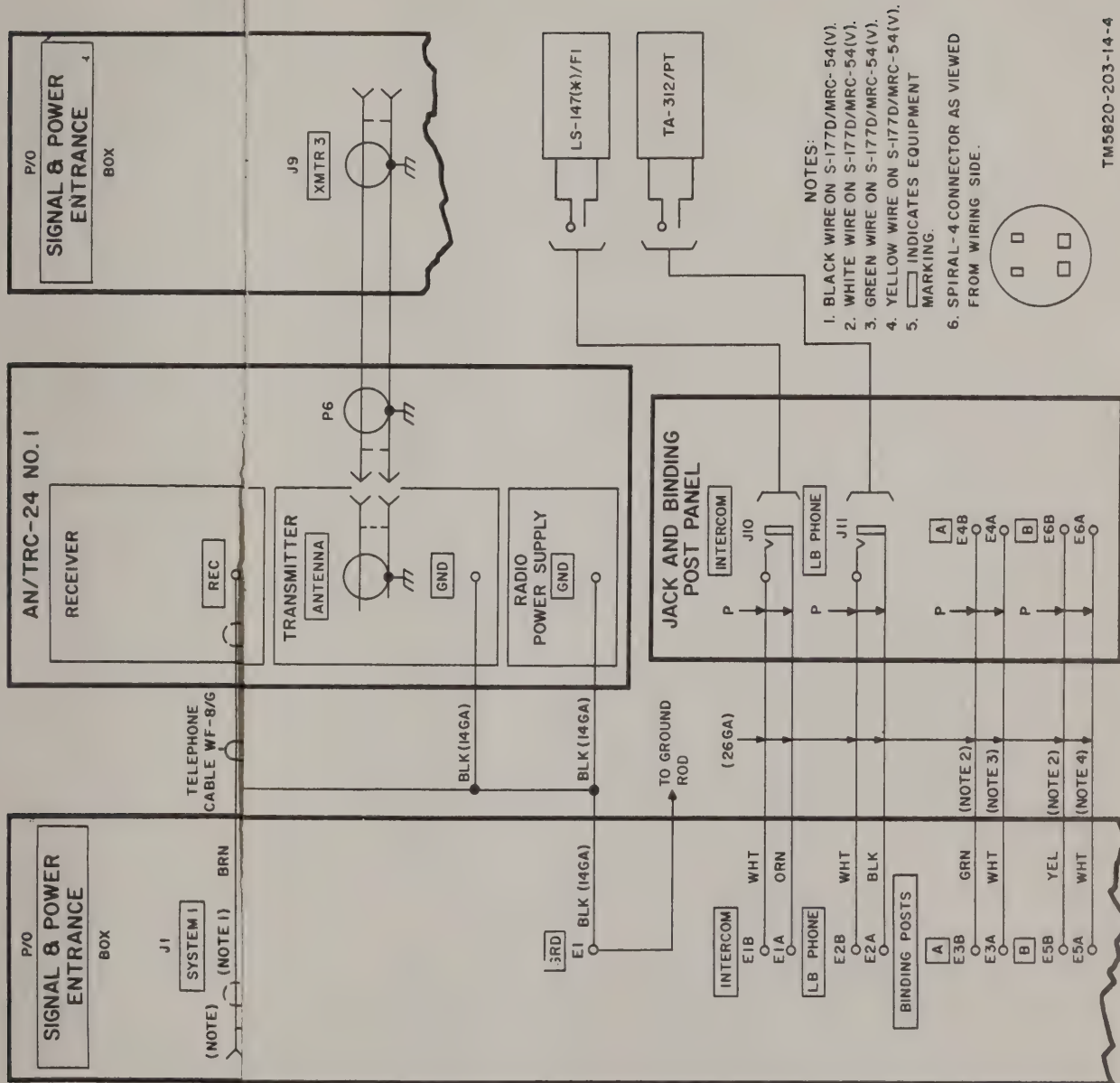


Figure 6-2. AN/MRC-54(V), cabling diagram.



TM5820-203-14-4

Figure 6-3. AN/MRC-54(V), signal circuitry, schematic diagram.

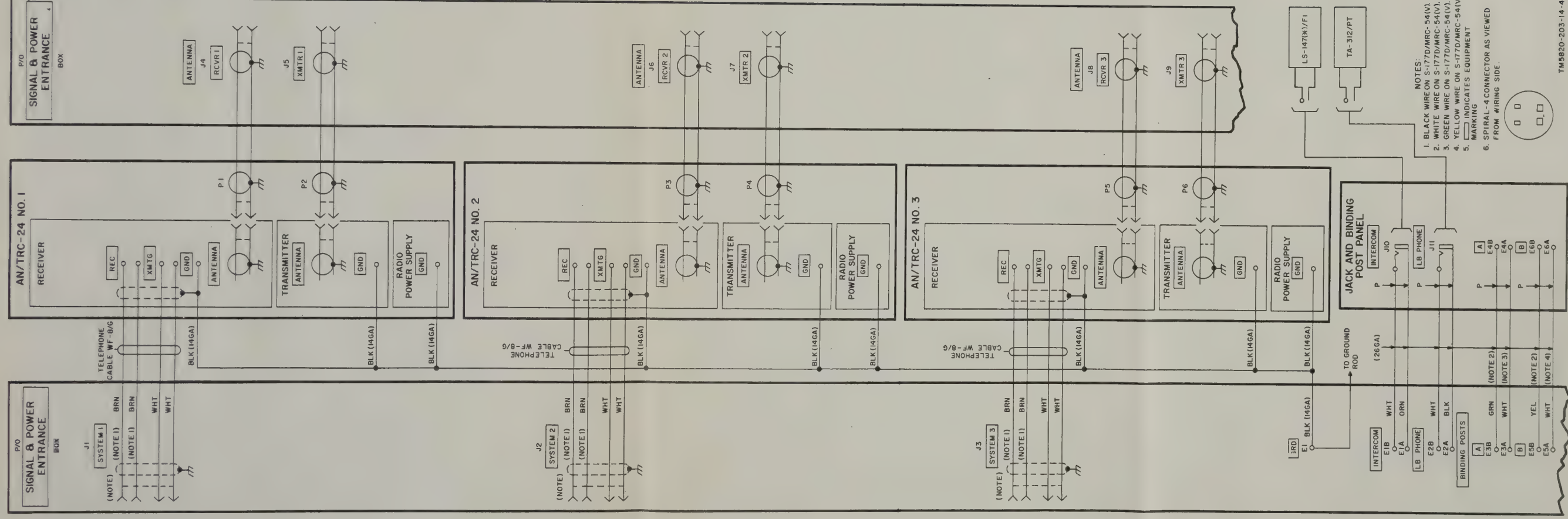


Figure 6-3. AN/MRC-54(V), signal circuitry, schematic diagram.

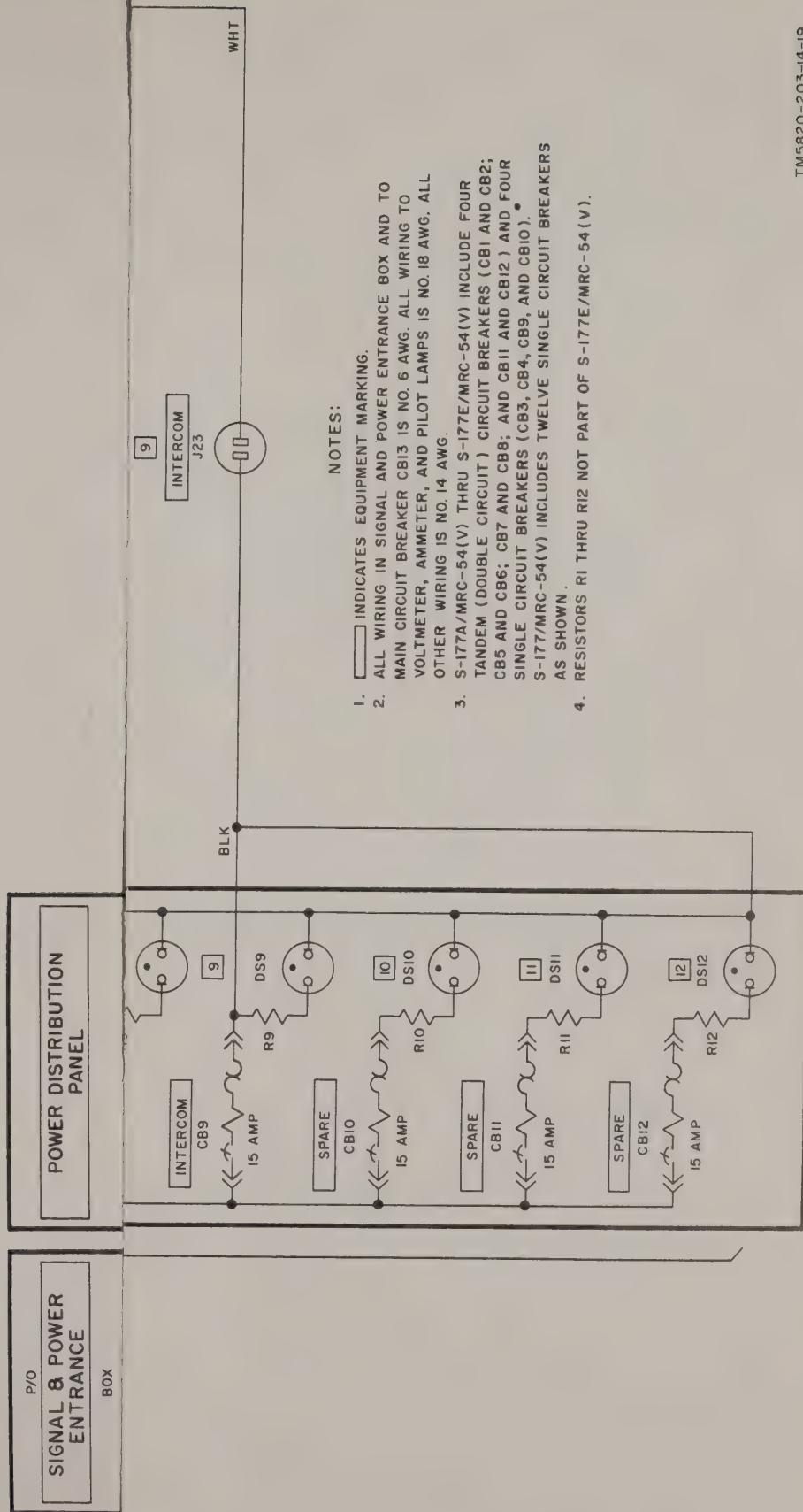


Figure 6-4. AN/MRC-54(V), power circuitry, schematic diagram.

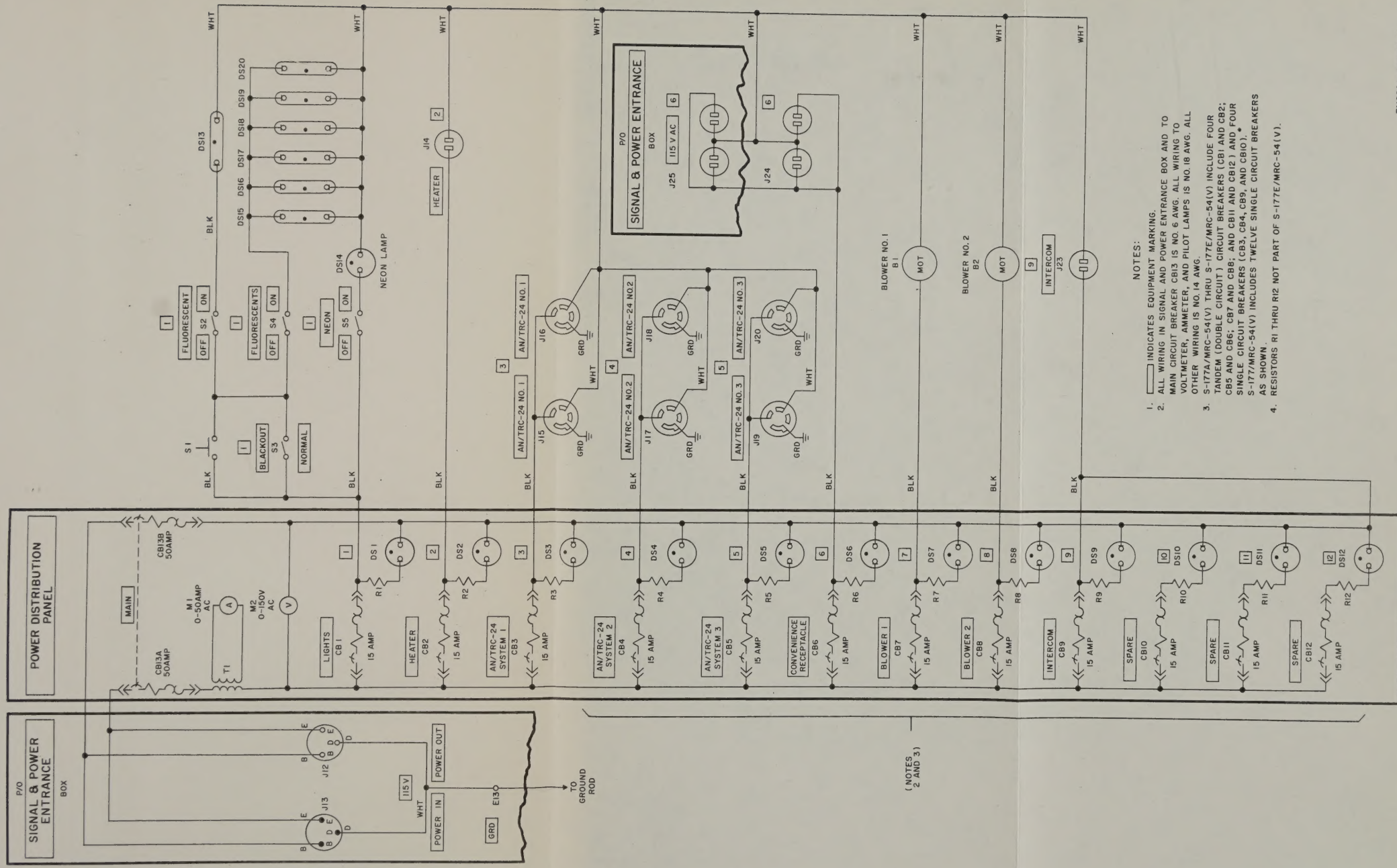


Figure 6-4. AN/MRC-54(V), power circuitry, schematic diagram.

